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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

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SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR JANUARY.

"The shutter closed, the lamp alight,
The faggot chopt and blazing bright,—
The farmer now, from labor free,
Dances his children on his knee;
While underneath his master's seat,
The tired dog lies in slumbers sweet."



It is within the memory of many of our readers, that in the course of the last forty years the *habits of farmers*, in the winter months, have materially changed, especially in their evening occupations. Better schools of vice could scarcely be devised by him who would see how rapidly and thoroughly he could contaminate the unsuspecting youth of country places, than those which were established, and most liberally supported, in nearly all the towns in New Eng-

land, in the village stores!

The short day's work over, the cattle tied up and supper hastily swallowed, most of the males of the family hurried off to the stores; all had caught the mania, from the stripling of a few years, to the man bowed with age and whose locks had blossomed for the grave! Where the distance was thought to be too great for walking, the faithful old horse that had been hauling wood all day was hitched to the sleigh, and after leaving his freight, left to "bide the peltings of the pitiless storm," shiver in the cutting blast, or, haply, if the elements were kindly, nod over the dilapidated stone wall or rickety fence, now and then disturbed in his slumbers, pricking up his ears, and wondering at the uproarious mirth within, louder than the crash of the falling forest trees during the day in the woods.

These nightly gatherings contained all the elements

of corruption; no man or boy returned to his roof-tree from them with unsullied purity. In their withering embraces his good principles were undermined, his moral sense blunted, and his affections weakened for those whose happiness ought to have been to him above all price. Those were times when it was fashionable to drink intoxicating liquors. The little tin, glass and gill cups, the half pints and pints, were in greater demand to portion out the burning fluid, than were the scales and measures to furnish the flour and oil, the sugar and coffee and tea, to supply the deserted board at home.

Drinking inflamed the passions, and these induced betting, gambling, and trials of personal prowess, which often ended in bloody noses, broken heads, and neighborhood quarrels, in which their wives and daughters were often involved. Such was the practice through much of New England for many years. Its consequences were plain all over the land. Unpainted and dilapidated houses and barns, straggling fences, tumbling walls, and lonely fields, half-starved and scurvy cattle, and ragged, unwashed and uneducated children, were its types. Husbands grew negligent in their personal appearance, and indifferent as to the world's estimation of them, and the poor wife and mother care-worn and disheartened, while mortgage after mortgage rested with overwhelming power upon the farm, until it became inevitable that the homestead must be abandoned, and they must seek somewhere else in the wide world a habitation (their *Home* they had lost) for themselves and their suffering little ones.

This terrible scourge to the land has been greatly alleviated, but not entirely done away; it will never be until the farmer comes to converse mostly of *things* instead of *persons*, and he can find profit and amusement in *books*, and pleasure in the bosom of his own family. But the great change that has taken place is encouraging. The fine dwellings upon thousands of our farms, especially the warm

and commodious barns, the better fences and finer stock, the fairer and more productive fields, together with the reclaimed lands, so long unsightly blotches on our own beautiful inheritance, all show that labor is more wisely directed, that the standard of morals has been elevated, and that *Home* and the domestic relations of life are more fully appreciated.

Everywhere there is a higher degree of intelligence and civilization. There are more good dwellings and farms—more comfortable chairs, more good beds, and more carpets on the floors of the poorer people. Thousands have rooms comfortably warmed, with stoves for cooking, that were formerly pinched with cold, and prepared their scanty meals over green fuel in huge stone or brick fire-places; so they have convenient kitchen utensils, where was to be seen scarcely more than an iron pot, a few articles of tin ware, and a few plates, of all sizes and colors, pewter, earthen and crockery.

Scarcely a house can be entered, however far away among or on the mountains, but what the schoolmaster, or his representative, may be found; the Atlas, Geography, Grammar, Arithmetic, National Reader, Philosophy, Algebra, besides Newspapers, Biographies, and something of the valuable literature of the day. A conversation with the sons and daughters soon shows that they have active and inquiring minds, which will not be satisfied that all things are right, *because* they have seen them done in a certain way.

We say, then, that there has been great progress, and that the last year has effected its full share. Can there be any better FARM WORK FOR JANUARY, for all of us, than to take a retrospect of the past, find encouragement in its teachings, and start on the new course with vigorous steps and determined will? We hold such a review to be *eminently practical*, as much so as to discourse of cattle and crops, meadows and manure, or pigs and poultry.

ACCOUNTS.—These are all settled for the year 1853, so that we have nothing more to say about them!

FUEL.—If the reader will peruse again the articles recently given upon fuel, he will see the unprofitableness of burning wood green, and the vexation which it causes in the family. Now is the time to get up the year's supply and prepare it for use.

TOOLS.—All cleansed, repaired, and ready for use! Some of them had not been painted for several years. "All done sir; step this way." Ah, neighbor CAREFUL, that is a sight which would have gladdened old JETHRO TULL's heart. Not a bolt or wrench in a plow, not a tooth in a rake, nor a tine in a fork, is lacking. The demon of discord never disturbs your pillow.

Leave one good pitchfork and one rake about the barn floor for use, and place all the rest in the tool-room, if you desire to keep them whole through the winter.

ABOUT THE CATTLE.—AIKIN, in his calendar, observes of this time of year:—"The domestic cattle now require all the care and protection of the farmer. Sheep are often lost in the sudden storm by which the snow is drifted in the hollow, so as to bury them to a great depth beneath it; yet they have been known to survive many days in this situation. Cows with much ado scratch up a few mouthfuls of grain; but for their chief sustenance they must depend upon the hay and other provision of the farm-yard. Early lambs and calves are kept within doors, and tended with as much care as the farmer's own children."

"Now, Farmers, to your helpless charge be kind;
Baffle the raging year, and fill their pens
With food at will; lodge them below the storm,
And watch them strict; for, from the howling east,
In this dire season, off the whirlwind's wing
Sweeps up the burthen of whole wintry plains
At one wide waft, and o'er the hapless flock,
Held in the hollow of two neighboring hills,
The billowy tempest whirls; till upward urged,
The valley to a shining mountain swells,
Tipt with a wreath high curling in the sky."

Cattle will need salt, and a little clean ashes, occasionally mixed with salt put in the cut feed for horses, is excellent for them.

SHEEP.—They do not care so much for the cold, but they require a dry atmosphere, they should therefore, go out and in at will. They will be found in the clear and intensely cold nights lying on the trodden snow in preference to lying down in the barn; while in quite warm, but damp weather, they lie in the barn or under the sheds. Sheep require careful treatment and keeping as well as the other stock. An occasional feed of corn, beans, turnips, or carrots, with access to the branches of evergreens thrown into their yards, will bring them out in the spring with full fleeces and carcasses, and large, vigorous lambs.

COLTS and STAKES, if carefully handled daily, will need no *breaking* of heads or limbs in order to make them work for you. Accustom them to the harness and yoke for weeks before you want their services, and when they understand what you want, they will do all they can cheerfully.

PEACH TREES may be headed down during the warmer days, while the heads of all the family may be most profitably filled up with useful knowledge, virtuous principles, and a sincere desire to make everybody about them *Happy through this New Year*.

A FINE PIECE OF BEEF.—MR. REUBEN THOMPSON, one of our old subscribers, of Plympton, Mass., deposited on Thursday, one of the finest fat beeves in the stall of Messrs. Holden, Bullard & Co., Quincy Market, that we have seen for many a

day. It was not large, but so mingled and stratified with the delicious fat and lean, as to make even an alderman's mouth water. The ox took the first premium at the late Exhibition of fat cattle in Plymouth county.

THE NEW YEAR.

The last year has been one of great agricultural prosperity throughout our favored land, and one, we confidently believe, of much *progress* in the Art. Mind, among the farmers, has had more thought for the causes and reasons of things, than ever before, and it promises to be still more active and inquisitive in the future.

With regard to ourselves, we intend to keep a steady draft in the old harness; attentively gathering up for your pleasure or profit, whatever seems of permanent value.

Our correspondents have been able and obliging. We are happy of the opportunity to tender them our congratulations, and express our obligations, and the hope that our personal relations may be more intimate. No important changes in the management of the paper are contemplated.

During most of the past year, the time and attention of both the *Publishers* has been greatly occupied in building, laying out grounds, and fitting up recently purchased estates. This, with our being obliged to move to make room for the Mechanics' Fair, has necessarily interrupted our operations somewhat. Yet the interests of the *Farmer* have gradually advanced, and new readers have been added from nearly every section of the country. We only need prompt payments from all to enable us to say that we are encouraged "on every side."

To each and all, we wish a prosperous and happy year.

For the New England Farmer.

WASTE OF URINE.

MR. EDITOR:—Having for years been of the opinion that the farmer's greatest loss in fertilizing substances, is in the almost entire waste of urine from all animals, I was much gratified by finding in the report of the Commissioner of Patents for 1851, House Doc. 102, pages 380 and 381 of said report, an article gathered from the great London exhibition, on the subject of the use of urine compounded with plaster, &c., and making what is there called *urate*. From that suggestion, I proceeded last March to save what urine I conveniently could, and at the time of planting corn, selected $\frac{1}{4}$ an acre of land for the experiment, in a lean state of fertility; this land had been manured seven years since; the next year seeded to grass with oats; then in grass four years, and in oats last year. I prepared a compound, which for brevity I will call *urate*, in this manner: To the urine, which had become putrid, I added 325 lbs. of ground plaster in its raw state, about $3\frac{1}{4}$ bushels of house ashes, and enough common sand, about four bushels, to reduce it to a state of dryness convenient to be sown

broadcast over the $\frac{1}{4}$ acre of land, which was done as evenly as possible, and thoroughly harrowed in, leaving sufficient of the *urate* to put about one spoonful in the hill at planting.

The crop was small and light, as was anticipated; but the corn at all times through the season, until ripened, exhibited a luxuriant green and apparent healthiness uncommon for so small a growth. I have no doubt the preparation would be of great utility on land in a good state of fertility, for a crop of corn.

Having a small quantity of the *urate* left, I used it in planting potatoes, where the effect was more gratifying. A piece of old mowing, broke up the fall before, thoroughly harrowed, and marked out with a plough for manuring in the hill, was selected for its application. We applied about $\frac{1}{4}$ to $\frac{1}{2}$ of a fair shovelful of good manure to the hill, in the midst of which one row was left, and about a heaped table spoonful, or perhaps $\frac{1}{2}$ a gill of the *urate* applied to each hill; the yield exceeded that of the manured land by several pounds in a row of 75 or 80 hills.

In another part of the same field the experiment was carried still further. In the following, the rows were all side by side, of equal length, and no manure, except the application mentioned, was used:—

ROWS FIFTY-FOUR HILLS IN LENGTH.

	Planted.	Produce large size.	Do. small size.	Total produce.
	Lbs.	Lbs.	Lbs.	Lbs.
1. Potatoes, common or middling size, no manure of any kind, weight about one-fourth pound.....	14	82 $\frac{1}{2}$	9 $\frac{1}{2}$	42
2. Do., common or middling sized, spoon full <i>urate</i>	14	94 $\frac{1}{2}$	9 $\frac{1}{2}$	104
[Plaster and Ashes applied after hoeing first time.]				
One large potato in hill, weight.....	27	28 $\frac{1}{2}$	14 $\frac{1}{2}$	107 $\frac{1}{2}$
Two small potatoes to the hill.....	10	68 $\frac{1}{2}$	12	80 $\frac{1}{2}$
One small potato to the hill.....	5 $\frac{1}{2}$	52 $\frac{1}{2}$	6 $\frac{1}{2}$	64
One-half large potato in hill.....	13	78	10	88

The next row was planted with middling sized potatoes; in yield much like the last weighed; the rain prevented our weighing them at the time.

From the foregoing it will appear that the *urate*, or some other cause, produced in fifty-four hills, 62 lbs. more than the same number without any application at all, but the bare soil.

Piermont, N. H., Dec., 1853. GRAFTON.

REMARKS.—A model communication, friend GRAFTON, and we hope it may be succeeded by others as practical as this.

A GOOD EXAMPLE.

The *Granite Farmer* states that at a recent meeting of the Executive committee of the Hillsborough County (N. H.) Agricultural Society, it was voted to hold five monthly meetings of the society the ensuing year, viz.: at New Ipswich, the last Thursday in December; at Amherst—the semi-annual meeting—the last Thursday in January; at Brookline, the last Thursday in February; at Woodbury Village, Antrim, the last Thursday in March. The time and place of the remaining meeting to be hereafter designated

For the New England Farmer.

DRAINING.

The question has often been advanced, and as often responded to, in various forms, in the columns of the *Farmer* and elsewhere, "What does the agriculturist most essentially want in order to promote the best interests of his vocation?" and it is a very frequent observation that he wants more scientific knowledge, and better information as to the best modes of farming, &c. But it appears to me that a great many know a "leetle mite better" about these things than they pretend. At any rate, I think there are a great many of the agricultural implements now in use, and some ways of working, that "*can't be beat*," as the old man said when he pulled up a carrot. But then again, in order to view the statute of truth with some correctness, we must walk all round it. On the other hand, there are some operations carried on in a style that seems about as ridiculous as plowing with the horses hauling by the tail. This is applicable, in most instances, to the system of thorough draining which has come under observation "*Down East*." Perhaps the method is a little better "*Out West*," but I am inclined to believe that you, too, want some modification in that particular; and as I have had some experience in draining, I shall just lay before you some brief observations on the subject in my own blunt way.

This very important and most essential operation has been carried on to some extent by the farmers around the suburbs of the little city of Calais, Me., and St. Stephens, N.B., and an outline of the drains there will serve as a description of most I have seen in other parts of the country. They are opened about $3\frac{1}{2}$ feet wide at the top, and vary in width at the bottom, from 2 or $2\frac{1}{2}$ feet to 1 foot, and are from $2\frac{1}{2}$ to $3\frac{1}{2}$ feet in depth, being from two rods to a greater distance apart. They are filled with stones to within a foot or 15 inches of the surface, for the most part, some with culverting and some without. The large drains are calculated as receptacles for the *muckie stones*. Now I predict that drains of this description will not be long in getting choked up, and will ultimately become of little service in any country, particularly in these parts, where the action of the frost is so penetrating, and renders the soil of a pliable texture, so that it is easily washed away or run down when a heavy rain-storm descends.

Vermin are also most likely to seek a rendezvous in such drains, making holes from the surface down to the stones, which gives the water a greater chance for the work of destruction, and besides they are far more expensive than drains of a more serviceable and permanent nature.

When drains are intended to be filled with stones, they ought to be ruled or lined on the surface not more than 15 inches wide, and dug out to the depth of three feet. The bottom and side should be left as clean as the nature of the ground will admit, and then filled with clean small cobble-stones to the depth of not more than 12 inches, with a neat small culvert. They should be nicely levelled on the top, and have a covering of straw or bush, then be filled in as soon after as possible. Drains of this description will answer the purpose in most land, 86 feet apart. The leading or main drains will require to be proportionate in their dimensions and construction to the extent of

their tributaries, or of the run of water that may be expected to flow into them. They should in all cases, however, be not less than three inches deeper than the others.

Drains 18 feet apart, and 27 inches deep, taken out in the bottom with a narrow spade, and cleaned as for tile, with six inches of beach or small stones, will answer; but when tile can be procured at a reasonable rate, they are superior to stones or anything else. The best kind of tile for tributaries, are those of a semi-circular form, 4 inches wide and 14 inches long, open on the base. It has been recommended that they should be perforated with holes to admit the water; but they should have no holes; they are better without them, and the closer they can be laid to each other the better. Soles in all cases should be dispensed with except in soft places, where they are absolutely necessary. Tiles cannot be laid so snugly on soles, besides, they are apt to be shifted or misplaced, or even broken by any pressure from above. The best covering above them is the top soil free from stones. A little straw might be used, but any stone or bush is apt to do more harm than good. There are many farmers who think that they must make a chance for the surface water to get in, but there is a great mistake in this matter. The surface water will get in fast enough. It must be borne in mind that plants derive most of their nourishment from water, even more than is generally supposed. This has been clearly demonstrated by placing a vessel filled with earth away from the surface of the ground, and raising a plant in it by watering it. The plant when grown may be as heavy as the whole earth in which it was raised; and yet it is found on being removed that the earth will weigh as heavy as when first put in. The conclusion is that the plant has received the elements of its construction from the water and the atmosphere.

Accordingly when the water is admitted too freely, besides being injurious to the drain, it may run off without leaving its fertilizing and nourishing elements in the soil.

Again, it has been doubted by some whether a great portion of the high land in these parts can be benefited by draining. They allege that it is already too dry, &c; but it should be borne in mind that drying is not the only object to be attained by draining. I have seen even comparatively dry land materially benefited thereby, so much so, indeed, that the crops on it were far less liable to be injured by the drought than before. Why, sir, there are some of the best farmers in Scotland, so enthusiastic in this, that they have the tiles plastered up at the joining with wrought clay, and that even when the drains are 3 feet deep, to prevent the water from getting in too fast.

But again I would say, let those who have any doubt about the accuracy or gospel of these statements, or I would invite any one, to put the thing to the test by actual experiment. Let them try the garden. Let them open the drains, 27 inches deep and 18 feet apart, or from that to 36 inches deep and 36 feet apart, according as they think will best suit the nature of the ground; and as the price of tiles, (according to the advertisements which have appeared in your journal) is beyond the reach of farmers of common means, let a suitable conduit be made, of some wooden construction. Wood will last a long time in a drain, certain kinds of it at least. There are some parts in

Scotland where wood has been used very extensively for drains. Nor is that the only material that has been used there. In clayey land I have seen black thorn-bushes used exclusively. Also furze, (whin,) heather, &c., and even tough-top sod, all to good purpose.

But, to conclude, I would just remark farther, that there are certain wet lands which are consequently cold and sour, where draining may not be of much apparent benefit the first season; there being certain peculiar elements lying dormant which I cannot scientifically describe, that are brought into action by the operation of draining which it takes some time to accomplish, and which may require the assistance of a sprinkling of lime, a little manure, (about half the usual quantity,) and some extra stirring, (subsoiling,) and then—Mr. Brown, what do you say?

There is much that might be brought forward on the theory of draining, and its advantages; possibly I may take up the subject another time.

Harvey, York Co., N. B., Dec. 6, 1853. J. R.

PRACTICAL HINTS IN SHEEP Husbandry.

MR. EDITOR:—Allow me, through your valuable journal, to reply to a few questions often put to us by young wool growers.

FOULS OR FOOT ROT.

Is it curable, and by what process? Experience affirms that it can be cured effectively by the following method. 1st. Pare and scrape the hoof most thoroughly, ridding it of all offensive matter by means of a sharp knife. 2d. Then apply a strong decoction of tobacco, in which has been dissolved as much blue vitriol (pulverized,) as will dissolve, to which is added a small portion spirits turpentine. The vitriol is a caustic—the tobacco is healing—and the turpentine is penetrating. In slight affections two applications, five or six days apart, will effect a cure. In severe cases it must be followed up for a few weeks. I have known sheep that walked on their fore-knees, not being able to touch their fore-feet to the ground, completely cured by this remedy. Remember that the knife performs an essential part in the cure; use it thoroughly. Butter of antimony, lime, alum, white lead, vitriol and other caustics have been used and failed. The tobacco is needed to heal.

SHEDS FOR SHEEP.

Do sheep require housing in the winter month? Most certainly; no domestic animal needs it more and none gives better returns for the outlay. Especially is this true in Ohio, and other Western States, where the winters are open and rainy, and the weather very changeable. Let a flock of sheep be once thoroughly drenched with rain and sleet, and then exposed for fifteen hours to a northwest blast, which freezes the fleece around them, and consumption and death will mark many a victim, and ere spring, greatly enhance the amount of crow-bate upon the farm.

Said an enterprising wool-grower of Vermont in our hearing the other day, "I would not have my flock of 600 sheep once thoroughly wet to the hide in winter for \$50. Rather than suffer it, I would shut them up 36 hours without food or drink." The advantages of housing are manifold. 1st. A large per centage of deaths are avoided. 2d. Much less

food is consumed. 3d. A much heavier and better fleece is obtained. 4th. The flock comes through the winter in a much finer and healthier condition. 5th. The lambs are more vigorous and likely to live. In short, reason, economy and humanity, all conspire to teach the important lesson—*provide suitable stables for your sheep*. And he who can and will not do it, ought himself to sleep bare-footed and alone, on a couch of straw, with open windows and under a leaky roof, where the winds go piping and careering through every crack of his cabin, for six months at least, until he shall have learned to sympathize with the dumb beasts God has committed to his care and keeping.

TUPS—HOW TREATED.

November is the month for coupling the ewe and sire. As five months usually intervene between conception and delivery, every flock-master can decide for himself how early to have his lambs make their appearance. Ohio can adopt a period 3 or 4 weeks earlier than Vermont. The buck should be kept up to generous feed during the tuping season, and allowed to serve from 8 to 12 ewes per day only. One leap is considered sufficient, and the ewes served should be taken from the flock and placed in another field. In 12 or 15 days, a flock of 150 ewes can be served by one buck, with less injury to himself than he would feel by being turned out to run with 60 ewes. Again his lambs come more vigorous and healthy, from the fact that they were begotten when the sire was in proper trim. After the flock has all been served, turn the buck and ewes together for a few days, to ensure service to any delinquents.

SALT IN WINTER.

Place a box in the shed, in a secure place, where only one sheep can approach it at a time. Fill this with 6 or 8 quarts of salt, and it will be found that the flock will partake of it in such quantities, and at such times as nature directs. When the box is emptied, fill again.

DO SHEEP NEED WATER IN WINTER?

They do, most certainly. A Dutchman of my acquaintance once shut up a flock of sheep and fed them on dry hay and corn with no water. Within six weeks several died. A post mortem examination came to the very correct conclusion that they died of thirst. His only excuse was, when interrogated on the subject, that "he supposed sheep would live without water!" His supposition was a costly one, and taught him an important lesson. He remembers it to the present time. The fluids of the system must be supplied. Hence, water is highly necessary to the well being of the flock.

GRAIN—ITS UTILITY—WHICH IS BEST.

The kind and amount of grain fed to a flock of sheep, will be regulated wholly by the object in view. For mutton purposes, corn is the best, because its properties are to lay on fat. If growth of carcass be the object, as it should be with lambs from 4 to 12 months of age, then oats, peas and beans are the best grains, as their properties are to favor the growth of bone and muscle. If wool be the main object, then wheat and rye, peas and beans are the best, as they contain a larger per centage of the constituent properties of wool, than other grains and directly promote the wool

secretions. Breeding ewes may be kept in too high condition to bring a healthy and vigorous lamb. The error is usually on the other side. Sheep that are kept up in close winter quarters for five months, not being permitted to roam in the fields, greatly feel the need of succulent food. Beets, carrots, turnips and bran, or mill-feed, are fine substitutes for winter pasture.

If these hints shall aid any one in swelling the increase of the American flocks, which have been on a stand-still for eight years—owing in part to the vast numbers that are annually consumed by this meat-eating nation—our object will be attained.

S. B. ROCKWELL.

—Wool Grower.

THE FOREST TREES.

BY ELIZA COOK.

Up with your heads, ye sylvan lords,
Wave proudly in the breeze,
For our cradle bands and coffin boards
Must come from the forest trees.

We bless ye for your summer shade,
When our weak limbs toil and tire;
Our thanks are due for your winter aid,
When we pile the bright log fire.

O, where would be our rule on the sea,
And the fame of the sailor band,
Were it not for the oak and cloud-crowned pine
That sprang on the quiet land?

When the ribs and masts of the good ship live,
And weather the gale with ease,
Take his glass from the tar who will not give
A health to the forest trees.

Ye lend to life its earliest joy,
And wait on its latest page;
In the circling hoop for the rosy boy,
And the easy chair for age.

The old man totters on his way,
With footsteps short and slow;
But without the stick for his help and stay,
Not a yard's length could he go.

The hazel twig in the stripling's hand
Hath magic power to please;
And the trusty staff and slender wand
Are plucked from the forest trees.

COLDS IN SHEEP.

These animals are not unfrequently affected with colds and coughs during the winter season, attended with mucous discharges, or a running at the nose. The best and most effectual remedy with which we are acquainted, are the spines and boughs of the white and yellow pine and hemlock, and common tar. The latter should be rubbed over their noses, which may be easily and effectually accomplished by spreading it on a board, and sprinkling salt over it. The animals will devour the tar with the salt, and not with so much care as to prevent their noses from becoming pretty well smeared with it. Careful attention and liberal keep will strengthen sheep, and greatly assist them in bearing up against this disease.

After sheep have been kept on dry fodder several weeks, they highly relish green or succulent food. If they are confined to the yard, scatter over

it the evergreens mentioned above, and they will be found to leave the best timothy or clover, and feed on the pine and hemlock leaves. Turnips, beets, or carrots chopt, and fed to sheep, tend to keep them strong and in a healthy condition, and there is nothing lost to the farmer in feeding these and occasionally a few beans or a little corn. They yield more wool, and larger and stronger lambs, under such treatment, and afford more profit than if scantily fed.

For the New England Farmer.

PREPARATION AND APPLICATION OF MANURES.

MR. EDITOR:—If there be any one subject that demands the attention of the Massachusetts farmer more than any other, it is, "*the preparation and application of manures*;" the means whereby the recuperative energies of the soil can be restored. We have no lands on which crops can be grown year after year, without the application of fertilizing ingredients. Animal manures, are the first for this purpose—but their quantity is so limited under ordinary circumstances, as to furnish only a small part of the needed supply. With the best economy in the preservation of the materials found in or under the stable of the cattle, or in the pen of the swine, it will not be practicable to make more than *one-third part*, as much manure as is needed upon the farm. How shall the other *two-thirds* be supplied? This is the question. For those lands situate on the borders of the ocean, as are many farms in the counties of Essex, Plymouth and Barnstable, the best resource is the material thrown upon the beach, and on the rocks along the shores; where these materials can be had, there need be no want of manures. Another rich and valuable supply is found in the muscle beds, and on the flats along the shore. For many purposes, the very best of fertilizing materials may thus be obtained. Hundreds and thousands of loads of mud and muscle bed are gathered every year, in the county of Essex, and spread by means of railroad conveyances in all the towns between the Merrimac and the sea. I have myself procured a supply of muscle bed, to be sent to Andover, to an intelligent cultivator of vegetables there—who was much pleased with the article—and found his benefit in procuring it; as will every man, who has a young orchard of apple trees, that he wishes to keep in thrifty bearing condition. No better application can be made when properly applied, and on ground properly managed. I have again and again seen its benefits; and therefore speak of it with confidence. But the source of fertilizing material to be relied on more than all others, is the *bogs* and *swamps* every where to be found. Here are the rich materials gathered for centuries, washed from the adjoining hills, waiting to be restored to their original position. The wonder is, that so much of the richness of the soil remains on these hills; one would suppose it would all have been washed into the valleys. Still, there is found, on steep declivities, much of fertility. How to gather and how to compost the materials found in the swamps and meadows, should be the grand study of the farmer.

Here let it be remarked, all mud is not alike—some needs to be managed in one way, some in another; some can be beneficially applied to the up

land, in the state in which it is first dug—and good crops are the consequence. Other parcels will be benefited by being exposed and frozen, and thus pulverized. Every kind of mud can be advantageously deposited in the barn-yard, the barn-cellar and in the pig-pen, and these mingled with an equal quantity of other material—whereby the quantity of manure on the farm will be doubled.

Of late much is said about the *concentrated essence of manures*, such as the phosphates, guano, poudrette and the advantages to accrue from the *analyses of soil*, whereby the deficiencies and superabundancies, in the constituents of soils, can be distinctly pointed out. Without doubt, by the aid of chemical science, many improvements may be made. But our farmers generally are not chemists, nor may we expect them to be; and however clearly these things may be demonstrated, the greater part of cultivation will still go on, as heretofore,—especially while the doctors themselves disagree so much in their prescriptions, and the mode of their operation. One will tell you that an ounce of a *certain phosphate*, applied to a square rod of land, is sufficient to ensure a full crop of wheat upon the land;—and without such applications no wheat can be grown; and this fact he will assure you, can be made certain, by a careful analysis of the soil. This may be so—but I have little confidence in such prescriptions. I believe it will be found like many of the highly sublimated notions relating to certain phosphates, put forth, with much assurance by those who profess to know.

These pompous assurances bring to mind an anecdote that occurred many years since, while my grandfather and his neighbor Marble were travelling in the county of Merrimac, N. H., where a farmer was planting his corn, on a pine plain, *without any manure*. My grandfather said to him, "My friend! how much corn do you expect to get to the acre, in the manner you are cultivating it?" He replied, "With the blessing of God, we may get ten or fifteen bushels to the acre." His rough companion by his side made answer, "Give me a good shovel-full of dung in the hill, this is the best blessing I want." Now sir, give me a good shovel full of dung properly applied to each hill of corn, and I will value it more with the blessing of God than all the phosphates prepared by all the chemists in creation.

J. W. P.

December 15th, 1853.

TOO MUCH STOCK.

We should never keep more stock on our farms than we have the means of keeping well. One animal properly cared for, and liberally tended, is worth more than two poorly kept. It is a strange but common error in rural economy, to appropriate to two, or perhaps three animals, the food which is barely sufficient to sustain one.—This singular error is often adopted by the farmers of an entire town; consequently there is little or no good stock to be found, and the profits resulting from stock-keeping and raising are greatly diminished, while the price of keeping of all kinds is, as a necessary and inevitable result, ruinously high.

Every farmer should keep just sufficient stock

economically to consume the keep his fields produce, and no more.

He should select the best animals to propagate from, and dispose of the poorest. "Breeding-in-and-in" should be cautiously avoided, and the greatest care taken to prevent deterioration by the introduction of inferior animals, whether native or foreign.

CHRONICLES OF A CLAY FARM.

This is a capital book—reprinted from the English by DANFORTH, HAWLEY & Co., of Buffalo. It has an American Introduction and Notes, by LEWIS F. ALLEN, of Buffalo, N. Y., a gentleman of great agricultural experience, and one of our best writers on the subject. The work describes the process of draining and reclaiming some of the wet, clay lands in England. This is done in such a lively and attractive style that to read it will afford a treat to the scholar as well as the farmer and the general reader: The American Editor says:

"The clear, vigorous, racy style in which its thoughts are clothed will attract the man of taste, while the sound and practical truths which are set forth will arrest the attention of all who feel an interest in their several subjects. They describe the process by which the most forbidding surfaces of swamp and bog land, (leaving out the wide fenlands, like those of Lincoln and Cambridgeshires,) by a moderate outlay of capital, may be turned into productive fields, teaming with agricultural wealth—a labor of the past century, in which the landholders and farmers of England and Scotland have been engaged, and in the results of which their agricultural products have been quadrupled, their population trebled, and now enjoying more of the comforts and the luxuries of life than at any former period."

Below are a few extracts:

FINISH THOROUGHLY WHERE YOU BEGIN.

"Your experience and mine will differ very much if you do not find more expense, and more regret, left behind invariably by an *under-done* than by an *over-done* job. 'The first expense is the least' in agriculture—and in every thing else perhaps, with the old exceptions of Law and Matrimony."

OPPOSITION TO PROGRESS.

"No sooner had the persecuting infidelity of man (the same in every age) begun to crucify his great theory of THE NUTRITION OF PLANTS FROM THE ATMOSPHERE, than the use of Guano and of inorganic manures began to give it proof. 'Burn a plant, whether it be an Oak-tree or a stalk of Clover,' (for so the assertion of the great Analyst may be briefly epitomized,) 'and the trifling ash it leaves will show you all it ever got from the soil.' But the bulk, the *weight*, the great mass of its vegetable structure—where is that gone!

'Into the Air:
And what seemed corporeal hath melted
Like breath into the wind!'

The weight, the bulk, the vegetable mass, of a crop, is simply, its *Carbon*. Combustion just undoes what growth did: and nothing more. It recombines the Carbon of the plant with the Oxygen

of the air, and their union is *Carbonic-acid gas*: the very substance which the leaves of a plant feed upon in the air where it is presented to them in its gaseous form, in which alone they can absorb it: they do absorb it; and in their clever little laboratory, they pick out the carbon and return the oxygen; just as our own lungs take up the oxygen and return the nitrogen. Multiply the two surfaces of an oak-leaf by the number of leaves on the tree, and you will be able to form some idea of the enormous surface, which the plant annually presents to the atmosphere to carry on this work of absorption.

But the roots—what is their use then?

Examine them through a Microscope, and you will see that, as the Leaves are adapted to intercourse with AIR, so the roots are adapted to WATER: not stagnant water: for the sponge roots which is always saturated, and their myriad fibers are each furnished at the end with a sponge, capable of rapid expansion and contraction—suited, therefore, to a medium in which moisture should be ever on the move, downward by gravitation, or upward by capillary attraction. This is the true condition of the soil demanded of the mechanical department of husbandry. 'Pulverize your soil deeply,' said Jethro Tull, who thought that plants lived upon fine particles of mould: and he said rightly, but in so far as he said only half, and thought that was ALL, he thought wrongly."

FALL MANURING.

"Decay is only slow combustion: and when you are burying great cart-loads of carbonaceous manure in the soil before winter, you are making a hot-bed underground, which will raise the temperature of the soil throughout the long reign of Jack Frost, and preserve many a tender seed that would otherwise perish: and herein lies the chief and wise application of all carbonaceous or bulky manure. Rightly, then, so far as their knowledge went, did our forefathers, who knew nothing of Turnip culture, plow in their long manure before winter: a poor practice at best, we say, to put manure in immediate contact with a grain crop, but not more poor than to apply to a green spring-crop, under the burning sun of June, the treasures of the Farm-yard whose spirit is exhaled before the body is buried, and whose body is not rotted time enough to afford its remnant of inorganic food to the crop it is applied to."

FARMING WITHOUT KNOWING HOW.

"Why do you think—why does everybody think—that he can farm without having learnt how; that agriculture (if you like that word best) is an exception to every other human labor or pursuit, a contradiction to all Natural Law, and will bring a livelihood without study, cost or apprenticeship."

OPERATION OF "MIND UPON MIND."

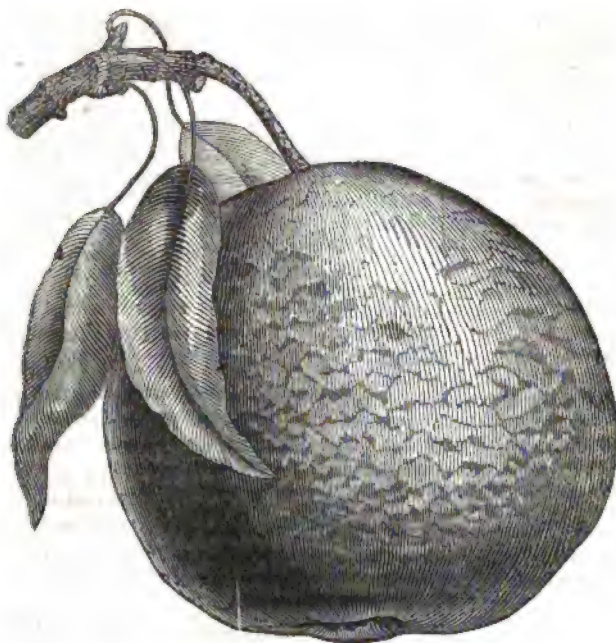
"Among the various experiences which the much more social Agriculture of the last twenty years has brought, (for a change has come over us in that particular since) there is none which has struck me more than that part of its philosophy which consists in the operation of mind upon mind. That of 'mind upon matter' is not a very new subject: we see it every day—and hear of it too, till it is something tiresome: just now we are on a different theme, and a less trodden: 'mind upon mind' is our point at present, and perhaps

the more important of the two, after all. I was going to say that in a pretty long and intimate experience of a rather curious soil to deal with, and to which never did man, horse, or implements, deny the epithet 'stiff,'—I too, like them, have had my own dumb reflections, and not the least emphatic of these have grown out of the every day phenomena of mind acting upon mind. You tell a man something, to-day, or express an opinion, or assert a fact, about a thing which he has perhaps never noticed or never heard, before; he smiles, starts, shakes his head, or delivers himself in some other way, for the ways are various in which men 'behave' (as the chemists call it) under the infiltration of a new idea. Whatever the mode may be, one thing you may be sure of, that in the grunt, the smile, the laugh perhaps, in fact whatever it may be that meets you, the attitude of mind betokened is that of—*dissent*. I am far from complaining of it: some of my best hands have given me infinitely the most mental grumbling in this respect. But what I do complain of, and want to know where to apply for remedy, (since the Law tells us that for every Wrong there lies one)—is that these same hard-headed fellows, workmen, neighbors, friends, kind advisers, or whatever other relation they may hold—six, twelve or eighteen months afterward, coolly come to me, and with all that air of profound thought that becomes a man of reflective character, down-calling as one may say with something intensely wise, announce to me in new language of their own, the very thing which I at such time suffered a small martyrdom in the vain endeavor to urge upon them."

Aside from the intrinsic value of the book, as a teacher, we regard it as a valuable contribution to the agricultural literature of the country, and one of those books which will gradually lead the farmer, sometimes, away from the dust and toil of his calling to commune with other minds, who have, perhaps, taken a higher and wider range of the employment.

"WHAT THE APPLE MAN SAYS IN 1853."—Mr. N. P. MORRISON, of Somerville, informs us that he has just received *ten dollars and eight cents* for one barrel and 28 apples of the Hubbardston variety.—These apples were sold by the retailer at 50 to 75 cents a dozen. Mr. M. cultivates about *eight acres* of land; his fruit crop, this barren year, brought him *eight hundred and fifty dollars*! For 26 bushels of apples he received *sixty dollars*. For 136 barrels, he received *four hundred and eight dollars*. For strawberries and raspberries, *one hundred dollars*. The balance, to make up the whole sum, \$850.00, was for cider apples, sold at 8 to 12 cents a bushel, and for early windfalls sold in July and August. Perhaps some of our young men will come to the conclusion that the market for good fruit is not yet overstocked.

☞ The value of the articles which have passed over the Erie Canal the present year is estimated to be \$39,626,862—being \$5,242,448 more than the value of the freights last year.



THE WINTER NELIS PEAR.

The above fine portrait of the Winter Nelis, was taken from a pear grown in the garden of Mr. ANDREW LACKEY, of Marblehead, a gentleman whose fine taste and zeal in the cultivation of fine fruits is worthy of imitation. Downing says:—

"The Winter Nelis holds, in our estimation, nearly the same rank among winter pears, that the Seckel does among the Autumnal varieties. We consider it *unsurpassed* in rich, delicious flavor, and indispensable to every garden, however small. It is a very hardy and thrifty tree, and bears regular crops of pears, which always ripen well, and in succession. Branches diverging, rather slender, light olive.

It is a Flemish pear, and was originated, above twenty years since, by M. Nelis, of Mechlin.

Fruit of medium size, or usually a little below it, roundish-obovate, narrowed-in near the stalk.—Skin yellowish-green at maturity, dotted with gray russet, and a good deal covered with russet patches and streaks, especially on the sunny side. Stalk an inch and a half long, bent, and planted in a narrow cavity. Calyx open, with stiff, short divisions, placed in a shallow basin. Flesh yellowish white, fine-grained, buttery and very melting, abounding with juice, of a rich, saccharine, aromatic flavor. In perfection in December, and keeps till the middle of January."

MR. RUSSELL'S ADDRESS.

We give below several paragraphs from the late Address of GEORGE R. RUSSELL, Esq., before the *Massachusetts Charitable Mechanic Association* at Boston, September 27, 1853. Did our limits allow, we should be glad to give the reader the whole address.

EVERY BODY PRETENDS TO WORK.

We live in a country where it is very uncomfortable to do nothing. Loafing is at a discount, and is the most wearisome of occupations. Carlyle says that "ease is for no man," and if ease means idleness, he must have been thinking of us. In the cities of Europe there is a class which passes through life without doing anything useful. Time has sanctioned the profession, and it consists of sufficient numbers to keep one another in countenance. But here the attempt is a desperate one, and of such doubtful estimation that the most inveterate loungeur feels it necessary to incur the expense of a gilt sign, to indicate that he has a place of business. It is in vain that he goes round, seeking for sympathy. He feels that he is in every body's way, and is like the truant boy in the story, who invited every animal he met to play with him, but as all were too busy to attend to him, he finally concluded that he had better go to school.

DESIRE FOR ACCUMULATION.

The almost universal desire for accumulation is wisely implanted in our race to urge us to exertion, that we may not desist from labor while there is duty before us, but may be stimulated to continue on the field of action when no longer goaded by the spur of necessity. There is honor in the

acquisition and possession of money fairly won and judiciously expended; and when we look around us and see what has been done among us by the union of opulence and benevolence, we have reason to speak with gratitude and respect of the generous men who, having once built up a name and fortune, have left behind them lasting memorials that "the good was *not* interred with their bones." But it is one thing to amass for the sake of liberality and humanity, and quite another to grind, and haggle, and shave, to feed inordinate avarice or to gratify a foolish ostentation, which manifests vanity without taste, and extravagance without elegance, proving that there may be a vulgarity in riches which cannot be concealed by all their agencies and appliances. Overgrown fortunes, with us while they are evidences both of public prosperity and individual sagacity, are of very temporary influence whether for good or evil. Where entailed estates are happily unknown, the divisions and subdivisions of an inheritance, however large, soon reduce it to inconsiderable fractions; and at the end of a generation or two, the descendants of the rich man must work for their daily bread. Other names arise to go through the same unvaried process, live their little hour, and be swept away to be known no more. Such is the unflinching doom of wealth; and as time bears up new names and consigns the old ones to oblivion, there is doubtless many a righteous retribution inscribed on his revolving circle.

NOT TO RIDICULE OR DESPISE NEW THINGS.

The world's history is full of the persecution of great men, who stepped forward in advance of their age, warning us to look kindly on honest purposes, and to judge with charity what we do not comprehend. Let us not ridicule or despise new things, because they conflict with our observation or seem to be impracticable. There is hardly a discovery or invention in art that has not had its day of trial and discouragement. Many a man has gone heart-broken to his grave, in whom the fire of genius has burned, unseen and unappreciated, when adverse circumstances, or shrinking timidity, or cold neglect, or the want of a kind word, have come like a mountain upon him and kept his secret buried forever. Prison bars have been pressed by throbbing brows which would have redeemed the world. The records of the world are full of the neglect of merit, and yet nothing has been told. Perhaps there is scarcely a man living who has not during some portion of his life, known some one who pined unheeded, wanting the genial air and sunshine which never came. Men get misplaced, and do not meet the magnet to draw out the metal within them. Mediocrity writes verses when it should be holding the plow, and the true poet does the drudgery of life, not dreaming why the fire torments him. The flint and steel are cold and cheerless until struck together, and they may never come in contact.

ICE AND GRANITE, CHIEF PRODUCTS OF NEW ENGLAND.

Ice and Granite, it is said, are the chief products of New England; and they fitly symbolize the hardy character of her sons. It seems to be a universal law, that in those regions where Nature sparingly gives forth her bounties, and the coy earth reluctantly responds to the attentions of the husbandman, moral worth increases and manly virtues find more room for development. Blessed

is the land whose children must work to live. The luxury that heralds decay finds no congenial resting place where toil is both necessary and honorable; and the surest pledge of enduring prosperity is found where industry is the ruling influence. Labor is the magic talisman that transmutes our rocks into gold, and sends our rivers to temper the sun in his own dominions. It converts our barren hills to grain fields, covers the wilderness with its foot-prints, and raises factories, and villages, and cities, with a celerity which seems the result of mere volition rather than the agency of human hands. It has made us what we are; and if we care for the preservation of our patrimony, and feel a generous pride in our distinctive character, we must acknowledge and honor it.

THE FARMER.

Some one has truly remarked that "the true farmer is always a philanthropist." Not only does he toil for the provision of his own wants, but in all his efforts, aims and undertakings, he is perpetually stimulated by the benevolent desire to leave the world better and more happy than he found it. Says an elegant author—"We contemplate Agriculture as subsidiary not only to abundance, industry, comfort, health, but to good morals, and ultimately to religion. We regard the farmer, stript to his employment, and cultivating his lands, as belonging to the first order of noblemen." In the language of Channing—"Real greatness has nothing to do with a man's sphere. It does not lay in the magnitude of his outward agency, but in the extent of the effect which he produces."

Every student of history is undoubtedly aware that a very great majority of the distinguished men of our Revolution—its war lions and statesmen, were from the producing classes. Washington, Jefferson, and Stark, were farmers; Franklin a printer, and so with hundreds of others that might be mentioned.

The following description of the farmer is by Phineas Fletcher, and will apply to thousands of the class.

His certain life that never can deceive him
Is full of thousand sweets and rich content;
The smooth broad beeches in the field receive him
With coolest shade till noontide heat be spent.
His life is neither lost in boisterous seas,
Or the vexatious world; or lost in slothful ease,
Pleased and full blest he lives when he his God can please.

WINDHAM CO. SOCIETY, VT.—The following gentlemen were recently elected officers of the *Windham County Agricultural Society* of Vermont, for the ensuing year, viz:—

MARK CRAWFORD, President.

L. G. BLISS, } Vice Presidents.
JOHN TURTS, }

HENRY KELLOGG, Secretary.

CHAS. K. FIELD, Treasurer.

A HOME PICTURE.

One autumn night, when the wind was high
 And the rain fell in heavy plashes,
 A little boy sat by the kitchen fire,
 A-popping corn in the ashes:
 And his sister, a curly-haired child of three,
 Sat looking on just close to his knee.
 The blast went howling round the house,
 As if to get in 'twas trying;
 It rattled the latch of the outer door,
 Then it seemed a baby crying:
 Now and then a drop down the chimney came,
 And sputtered and hissed in the bright, red flame.
 Pop! pop! and the kernels, one by one,
 Came out of the embers flying;
 The boy held a long pine stick in hand,
 And kept it busily plying;
 He stirred the corn and it snapped the more,
 And faster jumped to the clean-swept floor.
 Part of the kernels hopped out one way,
 And a part hopped out the other;
 Some flew plump into the sister's lap,
 Some under the stool of the brother;
 The little girl gathered them into a heap,
 And called them "a flock of milk-white sheep."
 At once the boy sat as still as a mouse,
 And into the fire kept gazing;
 He quite forgot he was popping corn,
 For he looked where the wood was blazing;
 He looked and he fancied that he could see
 A house and a barn, a bird and a tree
 Still steadily gazed the boy at those,
 And jessy's back kept stroking,
 Till his sister cried out, "Why, George,
 Only see how the corn is smoking!"
 And, sure enough, when the boy looked back,
 The corn in the ashes was burnt quite black.
 "Never mind!" said he "we shall have enough,
 So now let's sit back and eat it;
 I'll carry the stool, and you the corn—
 It's good—nobody can beat it."
 She took up the corn in her pinafore,
 And they ate it all, nor wished for more.

Harper's Magazine.

CULTIVATION OF THE CHESTNUT.

MESSES. EDITORS:—"Will you please to give your readers some directions for the cultivation of chestnuts. I tried to raise them two years ago, from seed, but failed entirely, and a neighbor tried them last year with like success.

Yours, &c.

C. D.

Columbus City, Iowa.

There is no difficulty in raising chestnuts from the seed, if proper precautions are taken in gathering, preserving and planting the seed. The chestnuts which are designed for planting should be gathered as soon as they are fully ripe, and the largest and plumpest should be selected. They should be immediately placed in mould or sifted earth and put away in the cellar, or buried in the ground, out of the way of the frost, rats and children. Be sure to use earth enough about them to prevent their heating. When the spring opens, prepare a place of ground, by pulverizing and ploughing it deeply, and plant the seed in rows three feet apart in the rows. They should not be covered deep, else they will rot in the ground. Half an inch of covering will answer every purpose. If you wish them to grow straight

and thriftily, they must be well hoed after planting. They may remain in the nursery rows two or three years, but if more than two years, the tap root should be cut away with a sharp spade. They will then throw out side-roots, and will endure transplanting the next year all the better. There is no difficulty in transplanting chestnuts, if the tap root has been cut off a year or two before. We transplanted six trees last spring from a nursery in this neighborhood, and they have since made an average growth of three feet.

Many people complain that their chestnuts are stunted in their growth, or, that they grow crooked. This may be remedied by cutting them down even with the ground as soon as they have become stout enough. They will then throw up a nice, straight shoot, that will grow very rapidly, and very little if any time is lost in making a large and healthy tree. The whole nourishment from the roots, however, must be thrown into the one shoot, by cutting or rubbing all others off.—*Iowa Farmer.*

For the New England Farmer.

OBSERVATIONS IN A GARDEN.

SUPER-PHOSPHATE OF LIME.

For the few past years, I have been on the lookout for a cheap concentrated manure. Last year I tried guano on a few young trees, and was well satisfied with the results. But this season I was told that there was none in the market—although there was occasionally a little, but very dear, and sold in too large quantities. Guano will always sell well, and why is it that our merchants do not import more, if it is to be had! Disappointed in procuring this article, I purchased a sufficient quantity of Deburg's super-phosphate of lime, to give it a test. But instead of making vegetables "jump," it did not hardly keep them awake; and this was discovered only when it was too late to remedy the evil. Later in the season, a dealer in the article told me he had some that he *knew* was good. Still I shook my head, when he, (determined that I should try it) gave me 15 or 20 pounds. I tried it in corn and around corn, and also around potatoes, cucumbers, squashes, tomatoes, &c., but did not perceive any benefit. The potatoes and tomatoes look very fair, but not so well as if ordinary manure had been used. The corn, cucumbers and beans, are a little below respectability; and the poor squashes haven't been able to keep alive upon it! The article was Deburg's. Now I am unable to say what its composition was (though I fancied I saw a little guano in it) yet I can hardly conceive of a chemical composition, having so many ingredients as it is said this has; that would not have told more beneficially. If all the odors were not permanently fixed in this new fertilizer, I might venture to say it evolved one, and that was *suspicious*!

PLUM TREES.

The curculio has committed its ravages as usual this season on my trees, and those of the neighbors, in spite of brick and mortar paving, which some of them have adopted. On some trees that set full, hardly one was to be seen in August. But next season they anticipate better results, as they say the insect will not be able to burrow beneath the tree the present. But how did the curculio get up through the pavement this season? The

best remedy which I have tried, as yet, is sprinkling the fruit and the ground with slacked lime. If the spiritual rappers, who profess to shed so much light on benighted man, in the form of fancy theology, would lend their aid in exterminating this pest to the culture of the plum, there's a bare chance that they might do some good! And any reliable facts from them, as a remedy for the potato rot, would be handsomely rewarded by the State.

WASH FOR TREES.

For the two previous seasons I have used ley as a wash on about 20 young apple trees, simply passing a moist sponge once over the surface of the bark. These trees grew well, and only one seemed injured by it, which finally died. I am not certain that the ley hastened its death, as the tree was not vigorous, and might have died at any rate; but the dark and cracked appearance of the bark led me to believe that it was injured by the wash. On the whole, I think ley rather dangerous. The past season I used a mixture, which seems to me preferable—one certainly which I shall try again. Fine soap-stone dust, with a little lime, was mixed with strong soap-suds, to about the consistence of paint, with a small quantity of yellow ochre stirred in to improve the color, and applied with a brush. The trees grew finely with this harmless coating, and new, in November, are of a very uniform light fawn color, the body of the mixture having been washed off by the rains. I think this wash possesses all the good qualities of ley, without the bad.

THE DIX PEAR.

I find this pear is highly valued in the market, though not handsome, and sells for from 50 cents to one dollar per dozen. As to quality, very few pears equal it, and an extensive retailer of fruit told me a few days ago, that, in his opinion, it was "a great way ahead of anything else." Its good quality is not denied, but Mr. Cole and other cultivators say, "that it is uncertain, and 15 years in coming into bearing." The obvious remedy would be to graft it on the quince, or upon old pear stocks. But a nursery-man says it isn't good on the quince, though it might possibly bear earlier, and that scions set in an old pear stock must be fruitless for 15 years! For a pear so excellent as the Dix, one having so strong a character, and retaining it even in the last stages of decay, this is discouraging. Can not some cultivators who read your journal speak more hopefully of this fruit?

D. W. L.

West Medford, Dec. 6th, 1853.

REMARKS.—Thank you, sir, and hope to hear from you again.

PEOPLE'S JOURNAL.—This is the title of a new paper, which we have just received. It is principally devoted to Agriculture and Mechanics; and, if the first number is a fair sample, the journal will be no small addition to the rank of similar publications. The number before us is profusely illustrated, with forty engravings, some of them very fine and of a large size. It is printed in an excellent manner, and altogether presents a most inviting appearance, which we hope will not fail to secure it a large sphere of usefulness.

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For the New England Farmer.

MANURES—BARN CELLARS.

MR. EDITOR:—I am much obliged to you for showing such deference to my wishes in relation to that long communication. It fills a little more space than I expected: otherwise, with the exception of a few slight errors—the greatest one in the "conclusion," where it should read, "the results of the experiments of our best practical chemists,"—it answers my sanguine expectations. But I was sorry that you found it necessary to remark on its great length, and shall regret that so much of my worthless scribbling was mixed in with those excellent extracts from our best authors, if it prevents the reading of the latter. I divided it as it was for two reasons; 1st, it was a season of little leisure, and I could write but a few lines at a time; 2d, some farmers' boys have but little leisure for reading, and that mode of dividing would give them ample stopping places. For one I prefer entire articles, even to ten pages at once, rather than be ten months, or ten weeks, reading the same number of pages. Indeed, I seldom read anything that is "to be continued" till it is discontinued; then, if it is interesting, it can be read more understandingly and without the vexatious suspense and anxiety that enters so largely into the experience of readers of "Popular Tales;" if uninteresting, it is a gratification to know one is not to be bored with it again. One reason for the great length of the communication was, being unwilling to omit regular reading for the sake of finishing it, I continued to find, in every agricultural book I took up, and every paper that came to hand, something that seemed to prove that the guidance of science is preferable to that of unscientific experience.

Without waiting to see whether Mr. Silas Brown and his friends—arrayed in their inviolable armor—turn upon me and overthrow me, I wish to make another reference to him on his "Barn Cellars, Restorative Gases," &c. A correspondent of the *Maine Farmer*, Mr. James D. Hill, of Moscow, in a criticism on the above named communication, says:—"It is true that the gases from my dung heap have not succeeded in escaping from the world; but what individual benefit do I derive from the fact that they have been condensed in the great laboratory of nature and descend with their fertilizing influence upon my neighbor's swamp?" I think Prof. Johnston—as capable of "accurate chemical experiment and nice observation" as any man in America,—says the gases are absorbed by plants in proportion to their healthy, thrifty condition, nature herself seeming to be partial to the fields of the best cultivators. Your correspondent says: "I am not able to comprehend what loss green manure can sustain in a few weeks while lying in a conical form as thrown from the window before the process of fermentation takes place to disengage the gases."—Probably no one could comprehend the loss sustained if the process of fermentation could be prevented for the time. But it appears from the sentence before the one quoted, that the decomposition of manure is hastened by the action

of rain and snow, which in this country seldom falls at intervals of weeks. As good authority as the *Cultivator* affirms that even freezing and thawing wastes the valuable properties of manure. It is also well known that Prof. Mapes, a practical farmer as well as chemist, mixes large quantities of prepared muck with his manure, to absorb the volatile portions. In answer to your correspondent A., of Tarrytown, N. Y., let us see what Dr. Dana and Prof. Johnston have told us about manure and the loss it sustains by exposure. Muck Manual, 3d. edition, Sec. 191. "Estimating the nitrogen as ammonia, the yearly produce of one cow is 156 lbs. of nitrogen, equal to 189 lbs. of pure ammonia, or equal to 677 lbs. of bi-carbonate of ammonia of the shops. A single cow will, therefore, give annually, fed on hay and potatoes, 31,025 lbs. of dung, containing 4800 lbs. guano, 677 lbs. carbonate of ammonia, 71 lbs. of bonedust, 37 lbs. of plaster, 37 lbs. of chalk, 24 lbs. of common salt, 15 lbs. of sulphate of potash. Lectures on the applications of Chemistry and Geology to Agriculture: XVIII, § 11. "The recent urine voided in a year by a cow 13,000 lbs., solid matter 900 lbs., containing of urea 400 lbs., and yielding of ammonia 230 lbs. When left to ferment for 5 or 6 weeks alone, and with the addition of an equal bulk of water, the urine of the cow loses a considerable proportion of volatile matter, and in these several states will yield in a year,

	Solid Matter.	Yielding of Ammonia.
Recent urine	930 lbs.	235 lbs.
Mixed with water, after 6 weeks	850 lbs.	200 lbs.
Unmixed, after six weeks	550 lbs.	30 lbs.

§ 17. Of farm-yard manures, &c. 10 cwt. of dry food and straw yield in recent dung 23 to 25 cwt., at the end of six weeks 21 cwt., after eight weeks 20 cwt., when half rotten 15 to 17 cwt., when fully rotten 10 to 13 cwt." Muck Manual, Sec. 204. "Barn-yard manure is too often exposed to rain. Its salts are thus washed out and the natural liquids mixed with it drain away, and are thus lost. It is a positive money loss, for the composition of an imperial gallon of this muck-water, as determined by Johnston, in two samples, is as follows:

	From cow dung washed by rain.	From verd dung watered with cow's urine.
1. Ammonia	9.60 gra.	23.30 gra.
Solid organic matter	360.80	77.66
Solid inorganic, or ashes	368.80	518.40
	479.20 gra.	617.80 gra.
2. The ashes of a gallon consisted of alkali salts	207.80 gra.	420.40 gra.
Phosphate of lime and magnesia, with a little phosphate of iron	25.10	44.56
Carbonate of lime	18.30	31.19
Carbonate magn. and loss	4.30	8.40
Silica and a little alumina	13.40	19.06
	268.80	518.40

These results speak for themselves. They show rills of wealth gushing from the farmer's manure. *Bridgewater, Vt., Nov. 10th, 1853.* J.

BONES.—Have these carefully saved. Keep an old barrel beside your ash house, and whenever you find

a bone, throw it in. It is wonderful how they accumulate. If you want to dissolve them, make a pile of bones and fresh ashes; wet moderately, and leave it for a month or so. In every two hundred lbs. of bones there is enough animal matter, phosphate of lime, and salts to grow an acre of wheat; and, we know not how many barrels of apples. When you plant a fruit tree, give it bones at the root.

For the New England Farmer.

DEATH OF BEES IN WINTER.

MR. EDITOR:—Believing that the several communications relating to the death of honey bees during the winter months, which have appeared in your paper, may have convinced many of your readers that they die for want of proper protection from the cold, and not being satisfied that such is the fact, I feel bound to submit, for the consideration of your readers, such facts and opinions as have been gathered from many years of experience and careful observation.

The fact that most bees die during our coldest winters has naturally led many to suppose that intense cold is the agent which causes their death; but a careful observation will, I am confident, lead to a different conclusion. If cold is the only cause of their death, tight hives and warm houses will be the remedy. But he who tries this remedy, will often find it a fatal one for the bees.

Every case which has come to my knowledge, where bees have died, have been in tight hives, while those in the same house, that lived, were in open hives. To more fully satisfy myself on the subject, in December last, I took three swarms for an experiment. No. 1 was a young swarm in a hive with iron legs 3-4 of an inch in length, to allow a free pass of air between the hive and the bottom board; this was placed in an open pen exposed to the coldest winds. No. 2 was nine years old, in a hive of similar construction, but protected at the bottom by a cellar, and placed in a warm house, though in an exposed situation. No. 3 was seven years old, in a hive with legs $\frac{1}{2}$ an inch long, protected by a cellar, and covered with thick rugs, and also placed in a warm house.

The result was as follows:—In No. 1, about one-half pint of bees died during the winter; in the spring they were in good condition, and the first of June sent out the largest swarm I ever had. No. 2 lost but very few bees during the winter, had a middling sized swarm. No. 3 lost more than a pint of bees during the winter, and did not swarm. At the present time they are all doing well.

If the cold, and that alone, will cause their death, why did No. 1 survive the intense cold of last winter? or why did a swarm of my neighbor's which were in an open hive, escape, while in the same house, three swarms in tight hives died?

The following is my opinion. The vapor arising from the animal heat, or breath of the bees, often collects in such quantities as to run down the sides of the hive to the bottom, where, in very cold weather, it congeals, and thus seals up the hive and makes it nearly air tight, with the exception of the entrance, which is easily closed by the first driving snow storm. To suppose bees can live a single day with a hive thus closed, would be unreasonable. That all bees which die in cold weather are killed in this way, I will not attempt to as-

sert, but that some do, I am fully convinced by actual experience. That bee-hives should be as well ventilated as our dwelling-houses I have not a doubt; in fact, I am fully satisfied that a hive should never set within three-fourths of an inch of the bottom board, though I think it may be well to place a cellar loosely round, during the winter months, to keep the winds from driving directly through the hive. Y.

TREES ON FARMS.

Another point of some importance, as connected with British farming, is *that of scattering trees in the hedges and open fields*. On lands devoted exclusively to pasturing, such are needed for their shade; and, scattered generally over a country, they add much to its beauty and picturesqueness. Especially is this the case in this country, where, owing to a damp atmosphere, the falling leaves soon decay and mingle with the soil, instead of becoming dry and littering the land and highways, as with us. Englishmen are justly proud of their old, spreading trees. Landlords often enter it in their leases, that no tree shall be cut down. Still, in those parts of the empire, where the farming is best, the trees are going. You now see but few trees in the wheat-fields of the low-lands of Scotland, for instance; and very few in the fields of such farmers as Mr. Pusey and Mr. Mechi. These men do not sacrifice their love for the beautiful in nature. They cultivate trees in their proper place. They are the last men, I suppose, who would leave a country naked and bald; but trees have no longer a place among their wheat and barley.

In our land of scorching summers, let there be trees. It would be barbarous to root them out from our cultivated fields, where they are injurious, without, at the same time, securing their growth in other places, where they are not only harmless, but pleasing to the eye, conducive to health, and often more profitable than anything else the soil will grow. Let them stud our pasture lands, as gems of beauty and of comfort. Our cattle need the means of coolness in summer, and warmth in winter. Only by attending to this matter, shall we ever approach that excellence in this department, which our British brethren have attained. More depends upon cherishing the breeds we have, than upon importing new. Let trees line our highways. Their roots and tops will be a little injurious to the bordering lands, but not much; the weary traveller and his beast will rest under their shade; our children will delight the palate from their produce; and our grand-children build their houses with the timber they grow. If our road-sides were adorned with a tree once in five rods, the rows alternating with each other, as far as convenient, the roads, with the exception of here and there a wet place, which might be intermitted if thought desirable, would not be a whit worse, and in many soils would be far better. If one-fourth of these trees were rock maples, they would furnish sugar for the population, whenever it should be cheaper to manufacture than to buy; and no one knows what future times will be. Rural dwellings should be adorned by shade trees. An American farm-house, under a sun shining intensely at least two hundred and fifty whole days in a year, is a very different thing from an English country residence, where the sun scarcely shines as many hours, and that mainly morn-

ing and evening. Yet the Englishman takes care to provide his residence with trees; the breeze that enter his windows come purified by a previous passage through dense foliage: while too often the American neglects to surround himself with these *conservators* of health and comfort; so that he and his family breathe air, not only scorching hot, but often surcharged with carbon and ammonia. An American farm-house, without trees at a little distance, (not so near as to produce injurious dampness,) is out of all taste, is unfavorable to health and comfort, and in utter disregard of the great law of adaptation to circumstances of situation and climate.—*Albany Cultivator*.

For the New England Farmer.

LOW-LIMBED, VS. TALL TREES.

Oak, elm, maple, pine and most other trees, which, in a dense forest, send up smooth, bare trunks, that may be measured by tens of feet, will in an open field, if left to themselves, limb out near or quite to the ground. Analogy seems to suggest the propriety of allowing apple trees, in similar circumstances and in our climate, to follow their own modest instincts in this respect, instead of compelling them to Bloomerize, without even a leaf to protect their spindle-shanks from the direct rays of an August sun.

On this theory, confirmed by some little observation, I planted an orchard of over one hundred trees in the spring of 1850. After considerable inquiry among nursery-men, I bargained with the Messrs. LAKE, of Topsfield, who said they could furnish just what I wanted—*trees not tall enough to sell well!* They were to be two years from the bud; consequently small at best, and still smaller for being "stunts." Some were however three or four years old—less attention being paid to age than to the required form of the trees. When they were delivered, Mr. L. pointed to a slim, lank-bodied, small-topped tree, and remarked, "there is a fine one—sold it for 75 cents; but, as it is not taken away, you may have it for 50 cents." I replied, "I would like to see it grow with the low-limbed trees I have bought of you for a shilling each, and will promise to set it out well."

Now for the result of four seasons' growth.

The tall tree was put in the garden, and in a soil in which a Louise Bonne de Jersey pear, planted near by and at the same time, has added full six feet to its stature; while the twigs of the apple have shot out one, two, sometimes six inches a season; but not enough in the four years to change its original forlorn appearance. The trunk, a foot from the ground, measures six and a half inches in circumference, and is now, as it was when planted, nearly of the same size all the way from the ground to the limbs, which branch out 5 feet high.

The small trees were set in a light, sandy and gravelly soil, from which wood had been previously cut; was cleared off and plowed in the fall previous, when a compost of meadow mud, lime, ashes and leaves, was made into piles, convenient for use in setting the trees in the spring. This is all the "manure" they have had, except what they may have stolen from corn and potatoes, lightly manured in the hill, that have annually been planted among the trees, and one *mulching* of coarse meadow hay. I have measured a row of 14 trees, which I think a fair average of the or-

chard, and find the circumference of the smallest six inches; of the largest, ten inches; average of the whole fourteen, about one foot from the ground, seven and one-half inches. The shortest trunk, seventeen inches; the tallest, three feet; average of the fourteen trunks, two feet three inches. I measured one limb that had grown eight feet in the four seasons, but in most cases I could not decide where the first year's growth commenced. But, take the trees together, the small ones have made about as many feet as the tall one has inches.

The exact circumference of either the small trees or the tall one when planted, is not known; but, while the first have changed from mere bushes to respectable trees, the latter has remained in *statu quo*.

The tall tree has been full of blossoms every spring, but has borne no fruit. Of the small ones, seven bloomed last year, (the third year from planting), and matured seven apples; this year twenty-one bloomed, but only one apple ripened.

In justice to the tall tree, I ought to add that it has sent out shoots every season from both roots and trunk, apparently for the purpose of remedying its unnatural position; but these have been regularly Jack-knifed, to give the tree a "fair chance," and the full benefit of "cultivation."

S. F.

Winchester, Nov. 8th, 1853.

GREAT CROPS.

The Annual Meeting of the *Rockingham, N. H., Fair*, was holden at Exeter, on the 9th inst. We find in the *News-Letter* the report of the committee on crops, awarding the following premiums:

The Committee on crops awarded the following premiums:

To Joseph Winslow, of Epping, for 111 bushels and 14 quarts, of Indian corn on one acre of ground, \$5.

To Joseph Cilley, of Nottingham, for 181 bushels and 14 quarts of Indian corn on one acre and 23 rods of ground, \$3.

To Stephen Dow, of Brentwood, for 175½ bushels of Rye on 4 acres 41 rods of ground, \$2.

To Daniel C. Long, of Kingston, for 30½ bushels of wheat on one acre and 24 rods of ground, \$4.

To A. C. Taylor, of Hampton, for 50½ bushels of Barley on one acre and 10 rods of ground, \$4.

To James H. Dow, of Rye, for 68 bushels Oats on one and a-half acres of ground, \$4.

To Rufus C. Sanborn, of Hampton Falls, for 151½ bushels of carrots on one quarter of an acre of ground, \$3.

The Committee on Bog Meadows awarded to G. C. Brown, of Stratham, a premium of \$5.

The above are certainly large corn crops. We were wondering what appearance that field would present, which gave to its fortunate owner, *one hundred and eleven bushels and fourteen quarts of corn on one acre!* We have recently harvested a field where we obtained about *sixty* bushels, only, to the acre. On passing through it repeatedly before it was cut, we could find scarcely a dozen hills to the acre that contained *only* three ears; on most of the hills there were four ears, and on many of them were five, six and seven, making an average, as we thought, of five ears of good sound corn to each hill. We planted three feet and six inches apart, each way, giving 3,555 hills to the acre, which multiplied by 5, the number of ears to the hill, gives 17,775 ears on an acre. The

common eight-rowed, yellow corn, will require 270 ears for a bushel of shelled corn. Now dividing the number of ears on an acre by the number of ears (270) required to make a bushel, and it gives 65 bushels and about 27 quarts, to the acre. Now if 46 bushels of corn were added to an acre such as has been described, it will not seem strange that we wondered what kind of an appearance it would present. It certainly would be a sight such as we have never yet been permitted to see.

HOW TO HAVE PLENTY OF WATER.

Pure, clear water, forming, as it does, at the same moment, both the emblem and embodiment of refreshment and comfort, is looked upon as a vital element of satisfactory existence, by all who hate dirt, parched lips, dusty lungs, stratified deposits on the skin, and parti-colored linen. It also forms a most agreeable class of pictures for the eye, in the form of placid sheets, bubbling brooks, sprinkling jets and flashing fountains; and through the ear, it gives us the music of cascades, the thunder of cataracts, and the grave roar of ocean surges.

It is no wonder that all are ready to labor for and welcome so agreeable a companion. The large cities have brought it many miles in bewn masonry, at a cost of millions, that they may syringe their streets, feed their baths, and keep a ready antidote for the incipient conflagration. The country resident longs for the termination of the parching drouth, when drenching rains shall fill his cisterns, replenish his failing well, and set the brooks in motion. Many are looking with envy at some rare and "lucky" neighbor, who happens to have an unfailing spring; and others, as we have often witnessed, placing the water hogshead on the ox-led, proceed to drag their needed supply from a distance of one to three miles, as the case may be, and as they can get it from the pond, creek, or some better supplied resident. We have positively seen a wealthy farmer drawing rain water a mile, after having allowed five times the amount he ever would have needed to run to waste immediately before his eyes; and we venture to assert that not one farmer in a hundred who has suffered from a want of water during the present year's severe drouth, has not committed a similar waste, though perhaps sometimes less in degree.

The great mass of country residents seem to have no more conception of the enormous floods of clear, pure rain water, that annually pour off of the roofs of their dwellings, wood-houses, barns, sheds, and other out-buildings, than if they had never heard of such a huge watering-pot as the clouds in the sky. If all the rain which falls in the Northern States within a year, should remain upon the surface of the earth without sinking into it or running off, it would form an average depth of water of about three feet. In the Southern States, it would be more; within the American tropics, it would amount to about ten feet; and near Bombay, in Asia, to twenty-five feet.

Every inch of rain that falls on a roof, yields two barrels for each space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate, on a similar surface. A barn thirty by forty feet, yields annually 864 barrels—

that is enough for more than two barrels a day, for every day in the year. Many of our medium landholders have, however, at least five times that amount of roofing on their farmhouses and dwellings, yielding annually more than four thousand barrels of rain water, or about twelve barrels or one hundred and fifty ordinary pailfuls, daily. A very small portion of this great quantity is caught in the puny and contemptible cistern and tubs placed to catch it; but full-sized, capacious reservoirs, fit to hold this downward deluge, we know not where to find, even in a single instance!

It is true, that where a constant draught is made on a cistern, it need not hold the full year's supply—even one-sixth part, will, in general, answer; as the variations in the wet and dry seasons do not often amount to more than the rain of two months. But allowing all this, where shall we find a cistern for a thirty-by-forty-foot barn that holds this sixth, or 170 barrels! Or one proportionately large, for a broader roof!

Now what would the large supply of water from sufficient cisterns enable the farmer to do? Or rather, what might he not do with it?

1. In the first place, all the cattle on a farm well furnished with buildings, might obtain all the water needed for their daily use.

2. Or, if instead, the usual proportion were supplied them by streams and wells, a large upper cistern would furnish all the conveniences of showering, washing, and sweeping off feculent matter, which are derived in cities from pipes and hydrants.

3. Or, if large cisterns were placed in the upper part of the farm-buildings (where the space they would occupy would be of little comparative value,) they would supply a fountain one-fourth of an inch in diameter, spouting fifteen feet high, for two hours every summer afternoon—the cisterns being unoccupied in winter.

4. In addition to supplying the fountain they would keep up the water in a pond at the foot of the fountain, thirty feet in diameter, (or with equal surface) and allow eight barrels to flow off daily for watering cattle or for other purposes, during the hottest evaporating days of summer.—*Country Gentleman.*

POLLED SHEEP.

TROS. BROWN—ESTEEMED FRIEND: There are two reasons which induce me to offer a few remarks to the Farmer on the subject of Polled Sheep. One is, I believe a decided advantage may result to the wool-growing community from a consideration of the subject. The other is, I am now compelled to buy horned rams for a cross of blood, because I cannot get such polled ones as I desire that are not nearly allied to my own stock.

I believe that nearly all middle and long-wooled Sheep are polled, while the males of the finer woolled varieties are usually horned.

I have for many years regarded horns on Sheep in a domesticated state, as not only a useless, but a troublesome and expensive appendage; and in 1845 fortunately getting hold of a very superior polled ram, I commenced to try to breed a flock which should be hornless. I proceeded by not only selecting polled rams, but, so far as practicable, perfect polled ewes also; and here let me

remark, a ewe that appears to the casual observer to be without horns is not always a perfect poll. There must be a cavity, instead of a fulness, where the horns usually attach, or she cannot be depended upon to produce polled lambs with certainty, although the sire be polled.

The result of my eight years' labor is, I do not now have but one horned ram lamb in about ten or twelve; and I do not believe that I have sacrificed one iota in form or constitution, or in quality or quantity of wool.

Some of my objections to horns are briefly as follows:

1. The substance that goes to make horns is the same that enters into the composition of wool.

2. If rams are polled you may let all the pure-blooded ones run entire to the age of one or two years, and then any that are rejected as rams will make as good wethers as if gelded while lambs.

3. Where horned rams run in flock in summer they are sure to fight, and if they do not kill each other outright, loose the skin about the horns, become fly-blown, and without constant care more or less of them die.

A gentleman who has been engaged in wool-growing over twenty years, and who keeps near two thousand sheep, told me he annually lost rams enough from these causes to pay all his taxes.

4. Horned rams frequently strike ewes in the side, bruising them, loosening their wool, and occasionally causing them to cast their lambs.

5. You can shelter and feed about double as many polled as horned rams in a given space.

In conclusion I would say I am always open to conviction. Has any one a reason why sheep in a domesticated state should have horns?—**Wm. H. LADD in Ohio Farmer.**

FATTENING SWINE.

The business of fattening swine is often rendered far more expensive than it need be. Many farmers feed only their best and most valuable grains and vegetables, and feed them raw. In this way a much larger quantity of food is required, than would be necessary, were the food prepared by boiling or steaming. Indian corn, fed whole, is always an expensive article in fattening any animal, and those who rely upon it exclusively for making pork, must not be surprised if their meat costs them more per pound, than the same is worth in the market. Many farmers are aware that the corn consumed by an animal, will, if sold in the market, at the common market price, purchase more pork than it will make. But by selecting poor corn, grinding it into meal, perhaps with the cobs, and cooking it either by boiling or steaming, and when convenient mixing it with boiled potatoes, turnips, beets, carrots or pumpkins, all of which are highly nutritious and salutary in their effects upon the general health, a very considerable and important saving may be made, and the pork, instead of being an expensive article of food, will be rendered an economical one.

In connection with every piggery there should

be an apparatus for steaming or boiling, where the several articles of food can be prepared and tempered with economy and ease. Apples are excellent for feeding swine, and if boiled or steamed and mixed with corn and cob meal, will be found to contribute essentially to the economy of fattening not only of swine, but of other animals. A person who was some years since engaged rather largely in fattening pork for the northern market, assured us that he preferred apples and meat to any other diet. He expressed his belief that pork could be fattened on this food, for four cents per pound—less even, we thought, than upon any kind of grain. In this economical manner the farmer may every year fatten pork not only sufficient for his own use, but frequently a surplus for the market, and it will be of the best quality.

For the New England Farmer.

MARYLAND CATTLE SHOW AND FAIR.

MR. EDITOR:—The Annual *Cattle Show and Fair* of the Maryland State Agricultural Society was held near this city, last week. Your readers may perhaps be interested in reading a brief account of the manner in which such exhibitions are conducted in this region.

The show occupied four days. Admission was obtained, only by paying twenty-five cents. In New England, this farmers' festival is free to all; as free as the light of the sun. But there are reasons why an admission fee should be exacted here.

The ground occupied, being near the city and being devoted exclusively to the interests of the Society, is subject to a ground-rent. The fixtures being of a permanent character, are more costly. On three sides of the lot, containing, I should judge, twenty-five acres, there are substantial, covered stalls, opening toward the centre, neatly whitewashed and numbered. Near the centre, there are a number of buildings, designed for the accommodation of exhibitors of mechanical and agricultural implements, and for offices. These buildings, though slightly built, are in good taste,—are very commodious, and make an imposing appearance. There is also a building in which hay and grain are kept for the accommodation of exhibitors. In front of these buildings is a race course, or *hippodrome*, the track being covered with tan-bark, and the whole enclosed with a railing. These buildings and fixtures necessarily involve much expense.

Then the amount paid out in premiums is much greater. Thirty-five hundred dollars was, this way, disbursed last week. Furthermore, there seems to be propriety in imposing a tax upon the multitudes, who go out from a large city, like this, to gratify an idle curiosity, and who contribute nothing to agricultural improvement, except in the consumption of her products.

The State, I am told, has made no appropriation to agricultural societies, so that if progress be made, it will be attributable to individual enterprise and liberality.

Our national government, as well as many of the State governments, seems very reluctant to recognize agriculture as among the departments of human industry which deserve protection and en-

couragement. Four-fifths of the whole population of our country are agriculturists. And yet while millions are annually expended for the benefit of commerce and manufactures, agriculture gets only a Patent Office Report, once in a twelve-month.

But I must to the show. The exhibition of *Horses* was very good. There were some valuable studs, breeding mares and matched geldings. The Morgan breed seemed to be in the ascendant.

The farmers of Maryland have hitherto paid but little attention to the raising of horses. As good horses may be found in Baltimore as elsewhere; but most of them are brought in from other States. *Neat* stock was in great abundance, but not in great variety. I saw no working oxen, nor any steers. Of bulls, old and young, and milch cows and heifers, there was a great abundance. The Durhams and Devonshires seemed to predominate. Of these breeds there were several very superior animals, both bulls and cows. There were also Ayrshires, Alderneys and Natives, and fine specimens of each. I should judge, from this exhibition, that preference is given, in this region, to the Devonshires. They doubtless excel in symmetry and beauty of form and color, and perhaps in hardihood. But for the dairy, I think them inferior to the Ayrshires, and for the stall, by no means equal to the Durhams.

The show of *Sheep* was excellent. A great number and superior specimens. The Bakewell, South Downs and Native breeds, were the principal. Three Merino bucks of recent importation, "could not be beat." I know not why Maryland may not successfully compete with Vermont in wool-growing. In this climate, sheep need no shelter in winter, and will do well with but little hay or grain.

In the department of *Swine* there was a very liberal show. The Berkshires were fully represented; the Chester breed, and the Native also. There were a few Suffolks, which were much admired and sold for a high price. The Berkshires are favorites with the farmers in this region, on account of their hams, which are thought to be superior. The Chester hogs, from Chester county, Pa., are popular in this State, if popularity can be predicated of a brute animal, on account of their size. They are sometimes made to weigh as much as seven hundred pounds, dressed.

There was one pen of hogs, from Virginia, which were greatly admired. There were fifty-one, all of them very fat, and said to be only sixteen months old. I think they would average three hundred and fifty pounds dressed. The tender said they had had no meal; their food being dry corn with water. It was a spectacle well calculated to make the mouth of a Gentile water.

The show of *Poultry* would not suffer by comparison with the great "Hen Convention" which, whilome, came off in Boston. Such a clucking and cooing and cackling and crowing as was kept up in the grove, occupied by this department, must have been a rare treat to ornithological amateurs. The chicken mania must have taken strong hold, and been widely diffused in this region. All the "improved" breeds, from the majestic "Imperials" down to little sputtering bantams, were exhibited, finer specimens I have never seen. There were also in abundance, geese, ducks, turkeys, peacocks, Guinea-hens, pigeons and nondescripts.

Of *Agricultural Implements* there was a great display. Machines for threshing, mowing, reaping, sowing, planting, grinding, sawing, making bricks, cutting hay and vegetables and pressing hay and tobacco, were exhibited in the full tide of successful experiment. Plows in almost endless variety, harrows, rollers, and all the smaller implements, were exhibited in great numbers.

Among the plows, I noticed the left hand plow which is common among the Germans, in Pennsylvania; also the short plow, which is in general use in this State. The Michigan plow and the subsoil plow I did not notice. The latter I know has been extensively used here.

I have mentioned many things and many animals, which I was glad to see in the enclosure. As a faithful chronicler, I must name what I should have preferred not to see at the show.

We are told that when the sons of God had assembled on a certain occasion, Satan came also among them. In like manner, or in some manner, when the farmers of Maryland had driven together their flocks and herds, for the laudable purpose of taking counsel together and stimulating each other to greater exertions for improvement, in the honorable calling of tilling the soil, the "critter" was found among them. Thinking, perhaps, that a "Cattle Show" would embrace every species of animals, wearing horns and hoofs, he made bold to enter.

In New England, the farmers' festival is a *temperance* gathering. So it will be elsewhere, when farmers generally understand the inseparable connexion between sobriety and thrift. Above the door of one building, I read "Ladies' Saloon," where refreshments of various kinds might be obtained. In another part of the enclosure was a stall, where eatables and *drinkables* were displayed. This must have been done with the approbation of the managers of the show. The triumph of the Maine Law ticket, in this city yesterday, gives an earnest of better things in future.

Allow me to mention in this connexion, one gratifying fact. President Pierce visited the show, during its progress. After looking at the various objects of curiosity, those who had him in charge, thinking to do him a special favor, conducted him into an office and set before him the intoxicating cup. The president, to his honor be it said, peremptorily declined.

Suffice it to say, this exhibition was highly creditable to the State, and furnishes abundant evidence that the cause of scientific agriculture is progressing in Maryland.

Yours,

R. B. H.

Baltimore, Nov. 1, 1853.

For the New England Farmer.

OYSTER SHELL AND STONE LIME.

MR. EDITOR:—Can you, or some of your correspondents, give any information relative to the value of oyster shell lime, when compared with common barn-yard manure. I would also like to inquire if you have ever tested its value when used for cement. By answering the above inquiries you will confer a favor.

Proctorsville, R. I., Nov. 21, 1853.

REMARKS.—Will some of our correspondents who have the knowledge, reply?

For the New England Farmer.

POINTS ARE PINS.

BY A. G. COMINGS.

Once on a time, imagination has it, a grave debate arose concerning pins. Assembled and associate wisdom gave to the subject great importance; and those who were in the habit of making pins, with those who were accustomed to using pins, together sat and listened; while merchant princes and knights of the counter entered fiercely into the conflict.

There was something in the subject, *pin*, which was truly great. There was also something very small. These were pin-head, and pin-point. There was something long, but nothing short; and so was the grave debate; much talk, but no decision.

The world will not be harmed by knowing a little about how this great debate was carried on, so I will try to tell them; but if nobody ever heard or saw the like, they will perhaps hardly believe me. But they will pardon me, for I must copy a little after the debaters themselves, if I say things without wit or wisdom.

The contest about pins was not whether pins were of use; for this everybody knew; and where people had knowledge, there was no place for debate. Neither was it a question whether anybody manufactured pins; for the manufacturers were on the ground, to discover whatever might have an influence on their chosen occupation.

The whole debate was on the important question, "what constitutes a pin?" The debaters were divided into three classes, namely, the great pleaders, the long pleaders, and the sharp pleaders. The great debaters urged that the *head* was the chief end and substance of a pin—that a thing without a head was no more a pin than an old maid was a part of mankind. If you use one to attach one part of the web of humanity to another, it will not stay put; but will surely shove itself right out of place, because of being without a head. It would be difficult for me, unaccustomed as I am to reporting such great arguments, to do full justice to those who so forcibly argued that pin-head was pin.

The long pleaders suited their manner to their subject, and made long and polished speeches to prove that the bar constituted the pin. There was much in their pleas. So long arguments, however, I have not time now to report.

The sharp pleaders contended that the point was the essential and indispensable end and subject of a pin; so much so that the point really constituted it a pin.

From the three contending parties might be heard the cries, "*Head is pin*;" "*Bar is pin*;" "*Point is pin*."

I was about to denounce the whole assembly—it was on my tongue to call them all a set of fools, making mockery of truth, when the genius of reflection addressed me saying, "utter no word of condemnation. You are a farmer. You are numbered among agricultural writers; and you can find folly to condemn in your own department. You may hear men crying, *Head is pin*,—*Point is pin*,—*Bar is pin*, among agricultural writers."

"Then I saw and considered it well; I looked upon it and received instruction."

There is a class of farmers who depend wholly

upon quantity; in the preparation or making of manure. They offer premiums to those who will make the *best* manure according to the amount of stock kept. They are continually crying "Head is pin." Now any fool can pile stuff together to make a heap; yet his heap of manure may be no more suited to supply the wants of the soil than a saw-dust pudding would be to meet the cravings of an empty stomach. There is something besides quantity to be considered, in making large heaps of compost. Bulky manures, large masses of old vegetable matter are as necessary to the soil as a head is to the pin. Without them the soil will certainly remain in as bad condition as any old maid in this wide world. You may dress it, and sigh over it; but it will bring forth nothing but grief and sadness. It will be barren. It must be married, that is, cultivated according to the natural laws of vegetable want, before it can be in any other condition than that of barrenness. The carbonaceous matter necessary to the maturity of a plant, and especially of a plant bearing seed, will not all be supplied from the air during the short life of the plant. Plants draw carbon from the atmosphere, but not in sufficient quantity to meet the wants of any thing more than dwarfs in vegetable life. More than ninety-eight pounds in every hundred pounds of wheat or rye grain belonged originally to water and air. These are driven off into the air by the process of burning. This is the pin-head to agriculture. An omission at this point, in our agriculture, will certainly prove unfortunate for us. But we may have ever so much old vegetable or carbonaceous matter in the soil, and not in the state it should be in to feed plants, or where the soil lacks the mineral or earthy ingredients of plants, and we may cry out pin-head is pin, as much as we will, we shall find that the crop fails of coming to maturity.

There is another set of men connected with agricultural papers and books who are continually crying, "Point is pin." They are from week to week making exhibition of the tables which chemists have prepared to show what the little end of vegetation is made of. That is, they give an analysis of the ashes of plants, and discourse untiringly upon the importance of supplying these substances, which are the elements of plants. Truly, the point of a pin is very necessary to the perfection of the pin; but these men may stand and cry, "Point is pin, Point is pin," as long as they please, in agricultural matters, and when I take off my hat to make a bow to them, on the high road of agricultural progress, they may expect it to be done in the style a Quaker would do it. The fact is, after all, that the chemical composition of the inorganic or earthly matter of vegetables and plants is only the little end of the greatest of all matters to a dependent world. It is to me a settled and certain fact that there are ninety-nine failures in crops from other causes about which little or nothing is said by the class of teachers referred to, where one such failure can be attributed to a lack of the requisite inorganic elements of plants. In the use of guano, superphosphate, plaster, salt, and lime, without supplying the soil with carbonaceous matter, men are imitating the sharp pleader, crying "Point is pin." Now all these are very valuable, and chemical analysis also; but we have had enough of making everything out of the little end of a thing.

The intelligent general management of a farm is, unquestionably, the most important of all things about farming. There are a class of farmers, however, who entirely abuse this idea, and contend that this is the whole matter. They despise all ideas of improvement, and all helps from abroad. We hear them incessantly crying, "Bar is pin." They care not for pin-head or pin-point. They want neither green crops nor meadow muck, neither guano nor any thing else.

So important is this matter, that I say without hesitation that I have no disposition to be satisfied with books or papers, on agriculture, which are not edited by men who are practical farmers. Others may tell us many good things, but they give us so many bad lessons at the same time, that they cannot be relied upon. Hence the strong objections to "Book farming." We want a pin to have a good head, a good point, and a well formed and polished bar. We want full views in agriculture, also.

A. G. C.

Mason, N. H.

AGRICULTURE IN VIRGINIA.

The Editor of the *Boston Journal* not only loves the garden, and knows how to procure some of the finest fruits and flowers that are produced in this vicinity, but knows how, also, to benefit his readers by laying before them, in his daily *Journal*, many items of interest in relation to agriculture and horticulture. From his paper we copy the following account of the progress of Agriculture in the Old Dominion:—

AGRICULTURE IN VIRGINIA.—A State Agricultural Fair was recently held in Virginia, which appears by the published reports to have been the largest, most enthusiastic, and most interesting gathering of the kind ever held in this country, and one which promises to be of immense importance in advancing the interests of agriculturists in that State. We have had some brief accounts of this fair. It commenced on the 1st of November, when, however, only the officers and members of the Society were admitted within the enclosure. On the 2d, the gates were thrown open, and not less than twenty thousand of the best population of the State were admitted. Everybody was not merely gratified, but astonished, as well at the immense concourse as at the extraordinary display of the agricultural and mechanical resources of the State. The annual address was delivered by John R. Edmunds. On the 3d, there was a plowing match, at which Madame Sontag, the vocalist, gave \$100 as a premium to the successful plow. Half the premium was given to the colored plowman, (a slave,) and half to the owner of the plow and team. On the 4th, the exhibition was brought to a close by the award of premiums, and these were by no means few nor small, and the valedictory address was pronounced by Ex-President Tyler.

But the most enthusiastic portion of the performance was exhibited in the nightly meetings of the Agricultural Society during the week, at Metropolitan Hall. Of this the *National Intelligencer* says:

"On the second night a proposition was introduced by Lewis E. Harvie, Esq., of Amelia, to

raise twenty thousand dollars, to be invested in State stocks, as a permanent endowment of the Society. This was responded to in the most enthusiastic terms, various gentlemen putting down themselves and their whole families, to the third generation, as *life members* of the society, and others pledging their respective counties for from \$500 to \$1000. The meeting was protracted to the hour of twelve, and before adjourning the sum of thirty-nine thousand dollars had been raised!

The same scenes were enacted on Thursday and Friday nights, and the enthusiasm was kept up in a practical manner, until upwards of sixty thousand dollars were subscribed! A suggestion that the Legislature should be called upon for a subscription was promptly put down, several members declaring that the farmers of Virginia, now that their spirit was aroused, needed no help of that kind, but would rely on *themselves*; yet, during the proceeding, it was found that professional men, mechanics, and merchants, all claimed the right to aid in putting Virginia agriculture upon a firm and enduring basis. A wag declared that, so far from asking Legislative help, the society was now ready to *shave the State debt!*

Think of this, farmers of Massachusetts! *Sixty thousand dollars* subscribed in two days to advance the cause of agriculture! Here is a spirit and example worthy of emulation. Virginia has heretofore displayed but few signs of healthy agricultural progress. Her farms and plantations have been cropped and cropped until they have become exhausted, and then have been abandoned. But we presume, one of the first effects of this agricultural furor, will be the introduction of new and improved modes of culture, by which the soil may be kept in heart, or reclaimed. The agricultural wealth and prospects of Virginia will thus receive an impetus which will place her on a par with other States whose natural resources are not so great in this important branch of industry. We look upon this fair as the dawning of a new and brighter day for Virginia.

For the New England Farmer.

TAR-WATER FOR THE ONION MAGGOT.

MR. BROWN:—As I have been a constant reader of your *Monthly Farmer* for a year past, and in it have noticed some remedies to save onions from being destroyed by the maggot, I thought, this last season, I would try one and see if it would do any good, as I have for several seasons past lost most of my onions by the maggot. Therefore, last spring, when I sowed my onions, I made the drills and sprinkled ground plaster into them first, then sowed the onion seed on the plaster, and covered it with the soil, and as soon as the onions were up five or six inches high, I procured two quarts of tar and put it into an old tin ten quart pail of water. I stirred the tar up and let it soak one day, then turned the tar water off into a sprinkler and sprinkled it over the onions about twice in a week, which saved the most of them, and larger and better onions I never raised in my life, they being the white silver skins. I lost a small part of them, I think, by not applying the tar water soon enough, as the maggot had got into a few before I began to make use of the tar water.

Yours respectfully, J. N.
Meredith Village, N. H., Nov. 15, 1853.

THANKSGIVING.

We have already uttered some thoughts in relation to this institution which annually unites, once more, the scattered households of our beloved New England. It is suggestive of many pleasant thoughts; arrests the current of worldly ambition, chastens the hot pursuit of gain, strengthens the ties of affection, and lifts our hearts in gratitude to Him who knows all our wants, and who has abundantly supplied them.

In a former article we briefly spoke of the *Variety and Wealth of the Harvest*. We will now give a few moments to a consideration of the *Development of Agricultural Science*. This is a prominent cause of the variety and abundance of which we have already spoken. The cultivation of the earth has become a *Science* and lays under contribution many other sciences; all the natural sciences are its auxiliaries—botany, chemistry, geology, &c. A multitude of the best minds of this country and Europe are engaged in it. Many of our universities have a department assigned to it, and all, probably, eventually, will. Some of the State governments have organized an agricultural Department; while others have the subject under consideration; and even the national government would have had a Bureau of Agriculture, ere this, if the politicians could have spared time from their party tactics. But the farmers—three-fourths of the voters—will soon call their attention to the subject. What an amount of talent will these great organizations turn to this chief industrial pursuit! Every experiment, discovery, or improved method, in any corner of the country, will immediately be made universal. And then what a multitude of local societies to reduce to practice all this knowledge, correct it and confirm it by experiment! It is an *Art* as well as a *Science*; and it is a fine art, as well as a useful. It covers the land with beauty as well as riches, and what is not the least benefit, this pursuit is elevated from a mill-horse round of toil to an intellectual pursuit, to a pursuit of taste and refinement. A Farmer's Club in a town, in its weekly discussions through the winter, will do as much to cultivate their minds as their farms. How much superior to the old practice of drinking cider and telling stories at their nightly gatherings.

Another blessing of vast importance to our comfort, is the *elevation of the Mechanic Arts*. They are elevated in more senses than one. They are elevated in dignity. In early times, the trades were badges of servitude—only the slaves and serfs were mechanics! The mechanical part we now perform by machinery raises more individuals into the character of overseers. We have greatly improved upon the ancients. They made war upon their neighbors and took the vanquished to do their menial work. We have pressed the elements into our service, which God made for that very

purpose. We have made the flaming fire draw our chariots, the wild torrent of the hills turn our spindles, and let the weary steed and the oppressed captive go free. Labor is now raised to the dignity of an intellectual pursuit. The engineer, and even the factory girl tending her looms, are raised to the position and emolument of overseers.

The mechanic Arts have conferred vast benefits upon agricultural pursuits; they are also elevated in the elegance and abundance of their products. Contrast the elegant cutlery and glass which now grace the tables of all classes, with the wooden and pewter plates and spoons of even forty years ago—the carpets and papered walls, even of the poorest now, with the sanded floors and smoky wainscoting of the most wealthy then! Compare the busy housewife, drawing out her solitary thread month after month, to clothe her family, with the modern factory—its polished machinery moving like the planetary system, and with almost as much silence and velocity! Compare the quality, variety, and elegance of fabrics now, and their prices fifty years ago.

The effect of these improvements cannot be otherwise than beneficial. A great increase of comforts, and a great diminution of coarse, hard labor, must tend to raise and refine society. It will be felt more by the poorer classes; for the wealthy never were condemned to want and drudgery. Released from the more wearing labor, and one person being able to do the work of forty, they must necessarily have more time for social and mental enjoyment and improvement.

We have thus enumerated a few of the blessings which demand our gratitude and thanksgiving; others, without number, are constantly flowing in upon us. The possession of this beautiful heritage which God has given us, with its healthful mountains and fertilizing streams; its variety of climate and varied productions of soil in different latitudes; the Union and harmony of the States, our noble institutions, and the independent and wholesome municipal regulations of the towns. These are blessings known by no other people in the degree which we enjoy them.

May they find a lively response in every heart, and influence us all to be anxious for ourselves less, and seek the happiness of others more.

AUTUMN TRANSPLANTING OF FRUIT TREES.—*Hovey's Magazine* gives the following reasons why autumn transplanting is preferable to that of spring, on all soils in good condition for the growth of fruit-trees, and they should be planted in no other:

Autumn planting is better than spring for the following reasons:

1. The time is longer than spring.
2. The ground is in better condition.
3. The trees are then in the most dormant state.

4. The roots, where cut, heal better, and are prepared to send out fresh ones even before the frost is out of the ground.

5. The winter and spring rain settles the earth around the roots.

6. The trees are well established before warm weather overtakes them.

For the New England Farmer.

RAILROAD STOCKHOLDERS BENEFAC- TORS TO THE COUNTRY.

MESSRS. EDITORS:—It is a fact that the original stockholders of Turnpike roads, Canals and Railroads, as a general thing, have benefited the public and injured themselves, that is, if we consider the money spent by individuals for the good of the public, a loss. Very few of the enterprising men who have gone ahead in making new discoveries and public improvements have been rewarded with anything like an equivalent for their services except the gratification every benevolent man feels at doing good. From before the days of Elijah the prophet down to the days of Columbus, and then to the present time, the prophets, astronomers, inventors of printing and numerous other public benefactors, have not been treated with marks of esteem or extrinsic politeness by the greater mass of mankind.

At the commencement of railroad making in this country erroneous opinions were formed by many people who were suspicious that some kind of a monster monopoly was about to take place to trespass upon individual interest and deprive them of their rights, and that railroad corporations would enrich themselves on the "spoils" of the travelling public. It is true that the railroad mania commenced among wealthy men of an enterprising description, who were willing to hazard in a game which promised novelty if not riches, and it is also true that other rich men, differently organized, would not vest a dollar in any direction unless in stocks where they were sure of being the better by 9 or 12 per cent. interest. Many of the landholders in the country, influenced by the clamor of interested persons, obstinately refused to sell their land at any rational price when a railroad would enhance the value of their property to more than double its former value. That same bigotry which has in all ages been the annoyance of every enterprise, seemed to revive and show its hideous figures as late as the 19th century. The stockholders in railroads acting from the motives of gain, novelty, public benevolence or from whatever influences have been among the greatest benefactors to the farming interest as well as every other interest, *except their own*, in the country. The original stockholders have "beat the bush" and the farmers, speculators and non-stockholding business public, have caught the bird. The stockholders are accountable for every expense, liable for every damage through carelessness of officers, and accidents, are prosecuted for every little injury of person or property, and fined without mercy by an unfeeling jury for frightening "distressed damsels," including other mishaps to the end of the chapter of misfortunes. On the other hand, the non-stockholding, riding public, have no risk to run only the risk of bruises, broken bones, broken necks, and strangulation and suffocation under drawbridges and in muddy streams,

which calamities are not much thought of provided there is steam enough put on to produce the desired speed.

On the whole, the land proprietors and those who have not lifted a finger to aid in the construction of railroads have received the benefit in the rise of their lands and the cheapness of conveyance of persons and freight, too much at the expense of enterprising stockholders, who are spectators of the success of their philanthropic schemes to benefit their country. According to the weekly sales of stocks in railroads very few of them pay as high as 6 per cent. per annum on the shares, and more which pay but little or nothing; but still the stockholders ought to feel well rewarded for the accomplishment of their successful enterprises in acts of benevolence.

It is to be regretted that railroad corporations have not better feelings toward each other; if they were disposed to assist, instead of exercising a baleful competition to injure each other, it would be more in Christian character, and more to the pecuniary advantage of all parties. Where there is litigation there is always waste, and the directors of railroads would do well to have as little money as possible spent in ill nature, that the deserving stockholders might have more to compensate them for the risk they have run and the expenses they have been at. I hope the millennium among railroad corporations will soon take place, when they will sit down in smiling repose together, (I do not mean on the track,) when there shall be no disagreement among them to cause injury to either party, when they shall all agree in equitable charges for passengers and freight that railroad conveyance throughout the country may be sustained without bearing too heavily upon an enterprising class of citizens. This warfare of driving one another from the field generally costs more than it comes to; the ground is generally purchased at a dearer rate than it would cost by treaty. Christian policy is the best, after all.

SILAS BROWN.

Wilmington, 1853.

N. B. I have made assertions in the above communication, if doubted, I think I can prove by statistics which are omitted in this that the communication should not occupy more than its share of room.

DOUBLE, OR MICHIGAN PLOW.

The *Albany Cultivator*, in reply to questions of a correspondent, says:—"The Michigan Plow, which is strictly a trench-plow, is a capital implement, but it requires nearly double the amount of team to draw it, that is needed for a common plow of corresponding size."

We have given the double plow a pretty fair trial on our own farm, and have conversed with several excellent plowmen, in regard to the amount of power required for this plow, compared with one having a single mould-board, and the opinion is common that the double plow requires *no more power*, if, indeed, it does quite as much, to do the same amount of work. We plow a furrow eight and nine inches in depth by ten inches wide, with two pair of oxen, on a stiff sward land, where it

has always required the same team to plow the same depth and width with a single plow. But we have great confidence in the knowledge of the editor of the *Cultivator* in agricultural dynamics, and hope he will explain to us the reasons for his opinions.

For the *New England Farmer*.

FALL PLOWING, &C.

MR. EDITOR:—Much has been written and said of late, on the subject of "Fall Plowing," as whether advisable or not. Some contend that it is a great advantage to plow ground wanted for spring crops in the fall, while others say very little or no soil should lie exposed to the frosts of winter in a plowed state. Our experience leads us to say that fall plowing is a benefit and an advantage according to circumstances. Some eight or nine years ago, we turned over a homestead meadow just before winter set in, and in that condition it lay till spring. We endeavored to plow as near six inches deep as we could, and as the work was done with the "Prouty Plow," it was, of course, well turned over. The soil was an upland old sward which had not been plowed for some thirty years. In the spring the soil was levelled down with the roller and harrowed without plowing, and planted to corn, when a heavy crop was produced. No manure was plowed in the fall previous, nor was any used in the spring excepting some compost, which was spread on the gravel knolls. Since that time we have turned over meadows in the same way, and in the spring spread on a heavy coat of fresh manure, mixing and covering it as well as we could with the harrow, and not plowing it again for fear of tearing up the old sward. In this way fine crops of corn and potatoes have been produced at small expense of labor. But a better way, we think, would be, to give the old meadow or sward a good covering of stable or dung manure, turning it down six or eight inches deep, and letting it lay till spring. Still, as stable or dung manure is not generally at hand in the fall, a good way is to get the manure all out on to the sward, or meadow, in the spring, and then in the first of May, spread and turn the manure all down with a six or eight inch furrow. We consider the difference betwixt fall and spring plowing, as being more with the convenience of the farmer as to time, than whether the soil shall be killed by one process, or cured by another. Both plans have their peculiar advantages—fall plowing in breaking down old swards that are inclining to stiff clay, and exposing a multitude of larvae of insects to killing frosts, while spring plowing has all the advantages peculiar to itself. All farmers of "progress" go in for deep plowing. And yet we think a great deal of unnecessary talk has been made as to know just how long time it shall take to get down to a certain depth of soil, say ten inches. There is little danger that a farmer will plow an old field at a depth of eight or ten inches the first time, unless it should be done by the double plowing of surface and subsoiling. We never have yet seen an acre of soil, whether it be a good soil or an old, barren soil, that ever was injured in the long run by deep plowing. Others may have seen directly to the contrary, and if so, then all very well. Take an old barren field and plow it eight inches deep, the first time, and the subsoil brought to the sur-

face will have a sterile appearance. In that case the manure or most of it, should be spread upon the surface and worked into the soil with the harrow and cultivator. This top or subsoil, after it has undergone the action of the sun, air and rains together with the workings of the harrow, cultivator and hoes will become as good, or even better than the top soil turned to the bottom of the furrow, by the end of the season. We think as much will be gained in deepening the soil for a permanent improvement in one season in this way, as would be gained in two or three years by lowering the plowing an inch or two in a season. On many farms the soil is so uniform that one kind of plow, and other implements, to match is all that will be necessary for the farmer to have, if they are of the right kind, such as "Prouty's" or "Ruggles" pattern. A good sward plow will be a good plow to plow mellow or stock ground, as we have found after ten years trial. Many teachers will say, that you must have one plow to plow sward ground and another to plow mellow ground, one to plow flat surfaces, and another to plow lapped furrows, and so on. Now there is no objection that we can raise to farmers having all these plows if they feel so disposed. But three or four plows of the right stamp, costing from eight to ten dollars a plow, makes a handsome sum when put together. If every person averages one good plow, it will be more than we shall expect to see in the next ten years to come. Of course we do not mean to say that all soils should be plowed with one plow, it will vary of course, according to circumstances. But a plow that will turn a furrow eleven or twelve inches in width, may do the work just as effectually as one turning a 7 or 8 inch furrow. The difference is not so much in the width of the furrow slice cut, as it is in the manner in which the work is done. The difference would be a quarter or a third more furrow slices in a field, in one case, than the other, but no difference in the yield of the crop will be seen. The same principle may be applied to mellow plowing, a heavy plow could work the soil over just as effectually as a light plow, and at the same time do the work much faster with economy of time.

Yours, &c., L. DURAND.
 Derby, Ct., Nov. 29, 1853.

JAMES E. TESCHMACHER.

One after another, the good and the useful are taken from us, while yet in the midst of life and health, leaving wide chasms in the ranks of those devoted to our beloved Art. Even if they were fully ripe, like a shock of corn in its season, and their days of active usefulness were over, we should scarcely know how to spare them; but when cut down suddenly, taken from our sides, as it were, while laboring in our accustomed fields, it deeply impresses us with the sublimity of nature—even of the richest and the best of all things here. While we cherish their memory, therefore, in our deepest heart, we will do as they would probably have advised us, press on with duty, whatever it may be, and endeavor to add as many real blessings to the world as they have added.

At a special meeting of the Massachusetts Horticultural Society, held on the 12th day of Novem-

ber, 1853, the death of JAMES E. TESCHMACHER was announced by Samuel Walker, of Roxbury, (late President of the Society.)

On motion, the President, J. S. Cabot, of Salem, appointed Samuel Walker, William S. King, and E. V. French, a Committee to draft resolutions expressive of the sense of the Society upon their loss.

The Committee reported the following preamble and resolutions, which were adopted:

Whereas, God in his Providence has called from this scene of his labors, in the fulness of his strength, and suddenly, without premonition, our beloved associate, James E. Teschmacher—it is

Resolved, That the Massachusetts Horticultural Society, while they acknowledge the inscrutable wisdom of God, and bow before this solemn evidence of his power, deeply and sincerely mourn the loss they have sustained. In Mr. Teschmacher this Society possessed an accomplished and experienced horticulturist, a wise and cautious adviser, and an active and useful member; while each of us, his late associates, ever found in him an intelligent, interesting and unpretending companion, an honorable man and a firm friend.

Resolved, That in his death, Science, Literature and the Arts have been deprived of an earnest student and a faithful expounder—one ever anxious to learn, and always willing to impart knowledge.

Resolved, That, in token of esteem for the character and acquirements of our late associate, and of sorrow for his loss, the members of this Society will wear the usual badge of mourning for thirty days.

Resolved, That we tender our sympathy to his bereaved widow and family; and that the President of the Society be requested to transmit to them a copy of the Preamble and Resolutions; and that the same be published.

The Society then, as a further mark of respect, immediately adjourned.

HUMUS.

The fertility of a soil is generally considered to depend upon the quantity of *humus* it contains. No matter how efficient it may be in organic substances, a portion of organic matter is indispensably requisite to ensure productiveness. The best and most economical method of supplying *humus* to soil, perhaps, is by turning in green crops.—When this method of amelioration is adopted, the vegetables selected for turning in should be such as derive the most of their nourishment from the atmosphere, or in other words those which are least exhausting to the soil in which they grow. Up to the period of inflorescence, buckwheat, peas, clover, and a variety of other plants classified in the same category, draw but slightly from the soil, the economy of nature being such in regard to them, that a comparatively small amount of aliment is demanded from this source. Hence it is that soils which are nearly or quite deficient of vegetable energy, are abundantly capable of producing a large amount of haulm, though they would necessarily fail to perfect a crop of grain. When buckwheat, peas, clover, etc., are inhumed

by being carefully and systematically turned in by the plow, and imbedded in the soil, the vegetable organism is immediately broken up, and converted into *humus* on vegetable food: the fermentation or putrefactive process, requisite to this result being completed with greater or less rapidity, according to the state of the weather, and the character and condition of the crop at the time of turning it down. The gaseous products of the fermenting mass are imbibed readily, and with great facility by the soil, while the other products—viz: those of a solid or fluid character, if permitted to remain undisturbed, are speedily incorporated and mixed with it. But should the soil be again plowed before the process of decomposition has been thoroughly perfected, as is too often the case, especially when a dry crop is to succeed a green one, much the larger portion of the gaseous, and not a small per centum of the fluid products, will be dissipated, and of course lost to the soil. It is therefore a good plan to turn in the green crop with a deep furrow, and prepare the surface for the reception of the seed to be sown, by harrowing, as the plow goes too deep for profit, and prevents thereby, to a certain extent, the very results it is intended to produce. A writer in one of our most popular agricultural publications, discussing the importance to the farmer, of this system of amelioration on light arenaceous soils, says:—

"In order to obviate wastage, and to render the mass more speedily and effectually available to the growing plants, it is recommended before turning the ameliorating mass, from twenty to twenty-five bushels of lime to the acre be applied. This, by its powerful action upon the buried fibres and foliage, will induce a vigorous and rapid fermentation, and as the lime will immediately absorb and fix the carbonic acid, one of the most important products of vegetable decomposition, as well as form a ready combination with the vegetable matter of the mass, its application is highly essential in order to obviate unnecessary waste, and to facilitate both the decomposition of the haulm, and the appropriation of its fructifying products, by the intended crop. Lands of a light, arenaceous texture are often indebted for their supposed incorrigible sterility and unproductiveness to the predominance of noxious acids or salts. These are sometimes innate to the soil, though more commonly produced by the application of matters intended as manures. But whatever their origin or character, they are speedily neutralized and rendered perfectly innoxious by lime. Should there be extant any original or insoluble humus in the soil, it will also, by the efficacious action of this mineral, be converted into a salutary and highly nutritious pabulum, or food for the succeeding crop."

On clayey lands, the turning in of green crops has a tendency to break the cohesiveness which is one of the principal causes which render them

unproductive. We are of course speaking of soils characterized by a vastly preponderating amount of aluminous matter, and not of that more common and valuable description of lands, known as clayey loams. These are so constituted as rarely to demand any effort whatever on the part of the cultivator, to change their constitutional character, and are generally capacified for productiveness, if but a slight quantity of manure is applied, annually, to the crops they are required to produce. But in all tenacious, viscid and retentive clays, which require loosening, the fermentation of a green crop, produces highly beneficial results. It also communicates to the soil many principles of which it was before deficient : such, for instance, as the inorganic elements of vegetation, and assists powerfully, in rendering soluble, and therefore appropriable, the insoluble substances it previously contained. On this account, unfermented manure is always beneficial to such soils, and productive of the most obvious effects, both on the soil and crops.

For the New England Farmer.

RAIN IN A YEAR—SLACKING TIME.

MR. EDITOR:—Will you or some of your correspondents who have a rain guage, please inform me through the *Farmer*, the quantity that usually falls in a year? (a.)

How much water should be applied to lime when slacked, for agricultural purposes, and how much salt should be added to the water? (b.)

How much of the slacked lime ought to be added to a cord of muck to be used as a dressing for potatoes in the hills. (c.) Please answer and oblige.
S. TENNY.

S. TENNY.

E. Raymond, Me.

REMARKS. (a.)—The amount of rain falling in the course of a year varies in different places. In an English work, we find the statement to be,

Under the tropics of the New World.....	115 inches.
" " " Old World.....	76 "
Within the tropics generally.....	95½ "
In the temperate zone of the New World, (United States.).....	87 "
Of the Old World.....	81½ "
Generally.....	84½ "

We have no reliable tables at hand to show the amount of rain falling annually in the New England States, but have supposed it to be not quite so much, (including snow) as stated above.

(b.) Add salt to water so long as the water will dissolve it, then wet the lime with it until the mass falls in a fine powder.

(c.) Add equal to a cask, at least, of unslacked lime to each cord of meadow muck; and more, if lime comes to you at a cheap rate. The whole should then be worked over most thoroughly, so that all the muck may be impregnated with the lime.

■ In Buffalo, one firm alone have sold and shipped over four thousand barrels of apples this fall.

SHORT HORN, OR DURHAM HEIFERS.



SHORT HORN, OR DURHAM HEIFERS.

The *Short Horned Cattle*, under which denomination are included the *Holderness* and *Teeswater* breeds, have been supposed to have derived their origin from a cross with some large bulls that were imported a century ago, from Holland into Yorkshire, and in the east and north parts of which country the two latter breeds had been long established and deservedly esteemed.

The cattle are of a good size, and are beautifully mottled with red spots upon a white ground; their backs are level; the throat clean; the neck fine, but not too thin, especially towards the shoulder; the carcass full and round; the quarters long; and the hips and rump even and wide. They stand rather high on their legs, but this must be carried to a very little extent; they handle very kindly, are light in their bone, in proportion to their size, and have a very fine coat and mellow hide. They possess the valuable properties of fattening kindly at an early age, and of yielding large quantities of milk.

There is considerable diversity of opinion as to what breed of cattle is best for the yoke, the shambles and for milk; but we believe that whoever rears and feeds well the Short Horns, will have no cause to complain of them for either of the objects mentioned above.

For the New England Farmer.

BIRDS OF NEW ENGLAND.

THEIR PAST AND PRESENT HISTORY. . . . No. 8.

BY S. P. FOWLER.

The American Robin is found throughout the whole of the North American continent. Its habits are so well known to every one, that no description is here necessary. The claim, which this bird is supposed to have upon our protection, in consequence of its feeding on insects, is, we fear, not well founded. We have noticed some controversy in our horticultural journals upon this point, and are sorry to be compelled to take the unpopular side of this question, against the claims of the robin, as a bird, useful to the farmer and horticulturist. The Redbreast is a thrush, feeding for the most part upon insects; sometimes, and perhaps from necessity, upon insects. We had proceeded thus far in our communication, when a female friend looking over our shoulder, exclaimed, you certainly do not intend to give the robin a bad name, and publish it to the world, by sending it to the editor of the *New England Farmer*. I replied, you would not have me exhibit the character of the robin, to our farmers and horticulturists, in a more favorable light than the truth would warrant. You wrong me in supposing any such thing. Wrong you, quoth our fair friend, her sympathy for the good name of her favorite bird, being now fully enlisted; who has wronged you? certainly, I have not, it is you, that has wronged the dear Robin-red-breast, that covered with leaves the babes in the wood, and whose innocence and social habits, have so long been sung in pastoral poetry, and nursery rhymes. I had

reason to expect, sir, something better of you, than this, after all your assertions of love for our birds. And as to robins not eating insects, you certainly are mistaken, for I have noticed them several times, the past summer, feeding their young with worms. Ah! my dear, but the earth worms, which you saw in the robins' mouths are not insects, and I am sorry here to notice your ignorance. And I am unwilling that your robins should destroy them, as they are entirely harmless, and useful in pulverizing and preparing the soil for plants. And I am constrained to say, that after many years' observation, I do not hesitate to pronounce the robin as the greatest of all pests to the cultivators of fruit, not even excepting that personification of mischief to the horticulturist, the Cherry Bird. It begins by committing its depredations on the first fruit ripe in the garden, and continues to do so, until the last is gathered. There are also many trees, shrubs and plants, whose fine appearance in Autumn, depending principally upon their scarlet fruit, that are deprived of all their beauty by robins, in their eager desire to obtain the berries as soon as ripe. There is hardly anything in the shape of small fruits or berries they refuse. We have seen them feed upon the berries of the Buckthorn and Arum, notwithstanding they were made to feel their drastic powers. They also devour Poke-berries, until their very flesh is stained with their crimson juices. The claim which the robin may be supposed to have on our sympathies, in consequence of its relation to its English namesake, is, in our opinion, rather slight. The English robin is smaller than ours, and resembles it in nothing but its red breast. It cannot, I think, be any nearer related to your favorite bird, than fifth cousin. And now, although truth has compelled us thus to speak of the robin's habits, we do not wish to be understood as entertaining any murderous feelings towards him, such for instance, as would, under any circumstances, however provoking, tempt us to shoot him. No, nothing shall move us to harm "the little bird with bosom red," for notwithstanding "all their faults, we love them still." We will continue to cherish and protect them, for the honest confidence they manifest toward us, for their pleasant and vigorous note, on a bright and beautiful spring morning, and for the interest and beauty they impart, in common with other birds, to the landscape and garden. We will protect them, in fine, for the love we entertain for all birds; the love of an ornithologist, so ardent and strong, like that which prompted in view of death, the author of the American Ornithology, Alexander Wilson, to exclaim, "bury me where the birds will sing over my grave." The next bird, which will claim our attention is the King-bird, who stands at the head of the Fly-catcher tribe. His habits are well known to every farmer, and he is distinguished for his love for the honey bee, and his fondness for seeking every opportunity to tease a hawk or crow. This constant habit of the king-bird, in attacking birds of prey, and driving them from the precincts of the farm-yard, together with his feeding upon insects, renders him of service to the farmer, and more than counterbalances the mischief he sometimes occasions, by his fondness for honey bees. We cannot do better, in vindication of the character of the king-bird, than to quote the language of Mr. Wilson, who says "the

death of every King-bird is an actual loss to the farmer, by multiplying the numbers of destructive insects, and encouraging the depredations of crows, hawks and eagles. For myself, I must say, that the king-bird possesses no common share of my regard. I honor this little bird, for his extreme affection for his young; for his contempt of danger, and unexampled intrepidity."

Mr. Wilson continues, "as a friend to this persecuted bird, and an enemy to prejudices of every description, will the reader allow me to set this matter in a somewhat clearer and stronger light, by presenting him with a short poetical epitome of the King-bird's history!"

"Soft sits his brooding mate, her guardian he,
Perched on the top of some tall, neighboring tree,
Thence, from the thicket to the concave skies,
His watchful eye around unceasing flies.
Wrens, Thrushes, Warblers, startled at his note,
Fly in a fright the consecrated spot.
He drives the plundering Jay, with honest scorn,
Back to his woods; the Mocker to his thorn;
Sweeps round the Cuckoo, as the thief retreats;
Attacks the Crow; the diving Hawk defeats;
Darts on the Eagle downward from afar,
And, 'midst the clouds, prolongs the whirling war.
All danger o'er, he hastens back elate,
To guard his post, and feed his faithful mate.
Behold him now, his family flows,
Meek, unassuming, silent and alone;
Lured by the well-known hum of favorite bees,
As slow he hovers o'er the garden trees;
[For all have failings, passions, whims that lead
Some favorite wish, some appetite to feed;]
Straight he alights, and, from the pear-tree spies
The circling stream of humming insects rise;
Selects his prey; darts on the busy brood,
And shrilly twitters o'er his savory food.
Ah! ill-timed triumph! direful note to thee,
That guides the murderer to the fatal tree;
See where he skulks! and takes his gloomy stand,
The deep charged musket hanging in his hand,
And gaunt for blood, he leans it on a rest,
Prepared, and pointed at thy snow-white breast.
Ah, friend! good friend! forbear that barbarous deed,
Against it valor, goodness, pity, plead;
If e'er a family's griefs, a widow's woe,
Have reached thy soul, in mercy let him go!
Yet should the tear of pity nought avail,
Let interest speak, let gratitude prevail;
Kill not thy friend, who thy whole harvest shields,
And sweeps ten thousand vermin from thy fields;
Think how this dauntless bird, thy poultry's guard,
Drove every Hawk and Eagle from thy yard;
Watched round thy cattle as they fed, and slew
The hungry, blackening swarms that round them flew.
Some small return—some little right resign,
And spare his life, whose services are thine!
—I plead in vain! Amid the bursting roar,
The poor, lost King-bird welters in his gore."

Another bird of the Fly-catcher tribe, we shall now notice, is the Pewee, a loitering fellow, with a drawing note, which some would think indicating great laziness. But upon a better acquaintance, his note would no longer be considered lackadaisical, but simply pensive, without affection. He certainly loves his ease, and spends many a warm sultry summer's day perched upon a dry branch of an old oak, in apparent listlessness, but not unmindful of the hum and motion of the insect world around him; occasionally launching forth into the bright sunshine, to secure some passing fly or small wild bee, and again returning to

his perch in the shade. The Pewee feeds upon insects when they are to be obtained, and when these fail, in Autumn, upon wild berries. There are in New England several species of these birds to be found. These are the Pewee, Fly-catcher, or Phebe, River-sided Fly-catcher or Pe-pe, Wood Pewee, and small Pewee. The farmer has no reason to complain of their habits. The Cedar-bird, perhaps better known as the Cherry-bird, is distinguished for its beautiful silky plumage, the gentle fondness of its disposition, and its gluttonous habits. They arrive from the south about the first of April, and feed principally upon insects, until the ripening of the mulberries and cherries. At this period, they are well known as great pests in the fruit garden. And should we stop here, in our investigation into the character of the Cherry-bird, we should be compelled to admit, they had but little to recommend them to the tender mercies of the cultivators of May Duke's. But we are happy however to notice, that the usefulness of this bird to the cultivators of fruit, is at the present time more generally admitted, than it was when Mr. Wilson wrote its history. The author supposed that the use of the Cherry-bird to the farmer consisted principally in their agency in transporting various kinds of seeds and berries, on which they feed, the action of the stomach not injuring their vegetative powers. In other respects however, their usefulness to the farmer may be questioned; and in the general chorus of the feathered songsters, they can scarcely be said to take a part. We must rank them therefore, far below many more homely and minute warblers, their neighbors, whom Providence seems to have formed, both as allies to protect the property of the husbandman from devouring insects, and as musicians to cheer him while engaged in the labors of the field, with their innocent and delightful melody." Such was Mr. Wilson's opinion of the merits of the Cherry-bird. Since this distinguished ornithologist's time, the character of this bird is in better repute, we trust, among intelligent and discerning horticulturists. It having been found, at least in the towns and cities in the eastern part of Massachusetts, that the Cherry-bird is very useful in destroying the canker worms. The period from their arrival, which we have said, is about the first of April, to the time of their pairing, which takes place the first of June, is spent by these birds, congregated in small flocks, in procuring their insect food, principally canker worms, and small caterpillars. And in this connection, we would notice the social habits of the Cedar-bird, as observed by ourselves, as well as others. We have seen a flock, containing some six or eight of these birds, after having silently fed upon the canker worm to repletion, seat themselves in a row on a dry limb, in a state of listlessness, pluming their wings, and occasionally liping their feeble note, and thus quietly digesting their meal. Presently, one of their number, more vigilant than the rest, discovers at a short distance from the perch, a well-fed insect, which he at once seizes, and politely presents to his neighbor on his right, who, declining to partake of it passes it to the next, who also refuses to eat it, and it is in this way, sometimes passed round several times, before one can be found to accept it. Notwithstanding this disinterested trait in the character of the Cherry-bird, they are sometimes gluttonous in the ex-

treme, gorging themselves with fruit, until no more can be swallowed, and even in some cases, filling their throats so full, as to cause suffocation, resulting in death. Although we have said in this communication, that these birds are the personification of mischief to the cultivators of fruit, more especially the cherry, yet, in view of the many insects, particularly that pestiferous one, the canker worm, which they destroy from the time of their first arrival, to the ripening of our early fruits, we should pause when meditating some murderous design upon their lives.

Danversport, Nov. 18th, 1853.

[TO BE CONTINUED.]

S. P. F.

For the New England Farmer

"SOMETHING NEW—GUANO."

MR. EDITOR:—I have recently seen it asserted, by gentlemen claiming to have superior intelligence in matters agricultural, that an article written for publication, was not worth publishing, "on the ground of its not suggesting anything essentially new on the topics treated."

An ambition to show off some new thing, is the rock on which many founder. It seems to me, to put forth ideas useful and practical, in a manner calculated to convince the understanding, is an effort much more deserving approbation, than simply showing something new. These new theories, and speculative notions, are the bane of all useful improvement. Take for instance, the accounts that have been given of the application of *guano*, to the growing of crops in New-England. How many have succeeded to their expectation by such application? One in ten, perhaps. When they do succeed, proclamation is made of their success. When, they do not, it is carefully kept in the back ground. Beyond question, there is much virtue in this fertilizing material—but it can only be used to advantage—by those who know how to use it.

One of my neighbors, a gentleman of high standing in the community, owning a farm of 200 acres, on which he has expended at least \$100 an acre—besides the first cost, for which his father paid, set about raising a better crop of grass than any of his neighbors. Accordingly he selected a couple of acres of meadow-land, turned it over, pulverized it fully, and put on a liberal dressing of *guano*, and sowed his grass seed. The consequence was, his seed came up, and there it stopped—and when the time for mowing came, there was nothing to be mowed, while his neighbor, having a meadow of like character adjoining, plowed it as usual, and applied a fair dressing of compost, costing much less than the *guano*—and there grew more than *three tons* of hay to the acre, the present season. So much for *something new*—without understanding it.

A CONSTANT OBSERVER.

REMARKS.—How could the knowledge of the proper use of *guano* ever be acquired without the aid of experiments? We believe judicious experiments are doing much for the farmer, while we deprecate that foolish *pride of opinion* which prevents a person, about engaging in such a work

as you have described, from making proper inquiries of those more familiar with the use of *guano* than himself.

THE WINTERING OF STOCK.

Taking the last census as the basis of the calculation, and there are at this time about six hundred million dollars worth of live stock in the United States. Their value exceeds that of all the manufacturing establishments in the country, and also exceeds the capital employed in commerce, both inland and foreign. Live stock is an immense national interest, but one which has been sadly overlooked by American statesmen and writers on public economy. How to winter cattle, horses, hogs, sheep, and poultry in the most economical way, all things considered, is a subject on which an instructive volume might be written.

The science of animal physiology sheds much light on the business of keeping live stock, both in winter and summer; and if properly studied in its bearings on this great interest, would add indefinite millions to the income of farmers, and the wealth of the nation. But how can we persuade our readers to study animal physiology in connection with the production of the flesh of their domestic animals? It is impossible to show them the valuable fruits of any science relating to husbandry before its seeds are permitted to be planted and cultivated in any State in the Union. Nevertheless, as the truths of science and the truths of empiricism never contradict each other, many learn by the latter not a little of the wisdom taught by the former. Thus science informs us *why it is* that cattle and other animals subsist on less food in winter, and keep in better order, if well stabled or housed, and regularly fed, than they will if subjected to the rigors of cold storms, snow, rain, mud, and irregular feeding. The latter system consumes both forage and flesh needlessly, and, of course, involves a prodigious loss to such as follow it.

Warmth is the equivalent of food, because food is used in the bodies of all animals to generate what we call animal heat. How far warm stables will save hay, grain, roots, corn-stalks, and other food of domestic animals, is not known; but a number of experiments lead to the conclusion that one-third may thus be saved with advantage to stock. A man at work out in the cold of winter, needs double the food that would serve him if he remained idle in a warm room through the winter; and the same is true of an ox or horse. A large share of all domestic animals do not work, and are kept for the production of flesh, milk, or wool. They need a reasonable amount of exercise to preserve their health, as well as good keeping in the matters of food, drink and shelter.

In wintering hogs, true economy requires that one should keep no more than will give the maximum of flesh for the food consumed. To keep a pig without his gaining in weight involves not only the loss of the food he consumes, but all the injury resulting from stunting his growth. Few are aware of the damage done to young animals by prematurely arresting the growth of their bones and muscles. A stunted pig, calf, colt, or lamb has received an irreparable injury. You can no more fully make amends for the shock given to the vital functions, than you can give a horse a new

seeing eye in place of one that has been put out by violence. No after-feeding of a horse will give him a new eye; and no good keeping will develop an animal frame perfect in all its parts after it has been stunted in youth.

Most farmers attempt to keep too much stock, both in winter and summer, for their food to be manufactured into flesh, dairy products, or wool. A few superior animals well housed in winter, and well fed at all times, yield the largest profit. Of course, stables should be properly ventilated that all animals may have a full supply of pure air. Most stables, and all sheds, give too much of it, especially in cold wintry weather. Look out for a plenty of straw, or other litter, to absorb all urine, unless you have a tank or other reservoir for it to run into. Manure is now as valuable as money at ten per cent. compound interest; for all the crops that manure aids so much in their annual growth sell at high prices. It costs nearly as much to plow, plant, hoe, and harvest an acre of corn to obtain 25 bushels as 50 bushels; and manure will double the crop.—*Genesee Farmer.*

For the New England Farmer.

UPLAND CRANBERRY.

Messrs. EDITORS:—I some time since informed you that I had on my farm in Carver, cranberries growing on high, sandy land, and I send you a sample that you may see the quality. Crossing my field where corn and rye grew but a short time since, I saw cranberries growing on the hills quite thick; they must have been propagated by seed. More than a quarter of an acre was covered with vines, and they were quite full of fruit in many places, of the best kinds; it is about five years since the crop of rye was taken off. While the fruit was injured by the frost on very low meadows this year, I found it perfectly sound on my upland; not a single berry was hurt. I have informed you before, that my best fruit grew on upland, and I am confirmed in my belief this year. I picked the fruit last week; there are bushels now on my fields perfectly sound where the water never stands, and in all seasons it is perfectly dry.

SALTING PLUM TREES.

For many years I have salted my plum-trees and had large crops of fruit, but last winter I omitted to salt the trees, excepting three, and the consequence was, that I had no plums excepting on the trees that I salted, which confirms me that the only sure way to get a crop of plums, is to put salt around the trees in the winter; about four quarts is sufficient for a tree; put it around in a circle about a foot from the tree, any time in January or February will do, without regard to snow being on the ground.

POTASH WASH.

I have used it ever since my first communication in 1840, and find that if I put four ounces in two gallons of water, for young trees, or eight ounces in two gallons for old trees, that no injury is done, but a great deal of good: it removes or kills all the insects that are in the bark, and it loosens all the useless bark, destroys the moss and kills all the lice and scales. It should be done in March or April, and then scrape off the loose bark in about a week.

TRIMMING TREES.

Fall is the best time to trim trees. It removes the surplus wood that otherwise would take the sap, and heals over much quicker than at any other time. If long limbs are cut off, put on paint to keep out the wet and prevent cracking. I think the best time for trimming all kinds of trees is when the fruit is gathered. I have tried all seasons and have come to the above conclusion.

S. A. SHURTLEFF.

Spring Grove, Nonantum, Nov. 25th, 1853.

REMARKS.—The cranberries sent are high-colored and very fine. They very closely resemble those we have raised ourselves on sandy upland.

The young orchardist will not fail we hope, to notice how sparingly Dr. SHURTLEFF uses potash water as a wash for trees—*four ounces*, only, in *two gallons* of water, for young trees, and double that quantity for old trees. In careful hands we believe such a wash would not be injurious; while the *pound and gallon* practice is a most dangerous one.

For the New England Farmer.

WINTER EVENINGS.

Winter is rapidly hastening his rather unwelcome appearance; unwelcome, because of the gloomy aspect he gives to the fields and forests, the garden and nursery, which for months have received such a large share of our attention, and occupied so large a place in our thoughts, as we have meditated upon the sublime beauty of the vegetable world. The sun, as if unwilling to linger long on the dreary sight of earth left of its beauty, hastily disappears behind the western hills. To all, whose business lies beneath the open sky, the hours of labor are made less, and the time for rest and pleasure and improvement increased. The mechanic in his workshop may pursue his calling, since art can supply what nature refuses, and the lawyer, doctor and minister, have long been fabled to grow wise by the use of midnight oil. But the farmer scorning to labor when nature seeks repose, quits the business of the day, with the going down of the sun, reserves the long interval between labor and rest, to be devoted to whatever pursuit inclination or fancy may dictate. His evenings are almost his only leisure time, and how to spend them, is an important question. How shall the farmer occupy the only time, in which he is busied with the cares and duties of his avocation, so that he may receive the greatest benefit, is the query which we propose to consider.

If the inquiry was, how have farmers spent their evenings, it might be easily answered. The store-keeper would perhaps tell of their nocturnal assembling at his mart of trade, to smoke "short sizes," talk politics, discuss town matters, hear the news, and engage in other equally interesting employments. The taverner might divulge what is no secret, that where the carcass is, there the eagles gather together. He might draw a picture, "founded on facts," as the novelists say, that would give farmers rather too prominent a position for their own credit. He might tell of a room, dark and dingy, filled with the fumes of rum and tobacco, loathsome in the extreme to the unpolli-

ted, and intimate that some farmers spend their evenings here.

The mechanic might tell of farmers and farmers' boys who pass the closing hours of day, at his shop, growing wondrous wise, over the chess and chequer-board, and unravelling all the mysteries of cards and dice, occasionally relieving the dullness of the game by relating some obscene tale, or engaging in vulgar jest; and to this add the home picture, of yawning and dreaming and gaping for something to do, or for bed-time, and we have the whole routine of some farmers' evening employments. We would not intrude upon the sacredness of the domestic circle, but just draw the veil sufficient to discover the misspent hours of dreamy reverie, and to mark the deadening effects of idleness.

But how can the farmer, profitably, spend his evenings? To answer this question, by suggesting how they might be improved, shall be my object, and if I succeed in breaking the spell by which too many are debarred from a fruitful source of happiness, I shall receive my highest reward.

The past is a vast store-house filled with the wisdom and the folly, the virtue and the vice of generations passed away. To unlock this repository and become familiar with the recorded page, is a most fitting employment. So long as farmers are susceptible to the influences of good and evil, and capable, with "the rest of mankind," of becoming virtuous or vicious, it will be of importance that the characteristics and progress of truth and error be known, else how shall he imbibe the one, and reject the other.

To mark the progress of agricultural art and science, to learn the various means by which all strive to gain the same end—an abundant harvest—can hardly fail to interest and improve every "tiller of the soil."

In the sciences of geology and botany and chemistry and natural history, what a field is open for the farmer to traverse, and how fitting that he who lives and labors in nature's laboratory, should acquaint himself with the objects and operations with which he is surrounded. How can a portion of the long evenings be better occupied than in reading the volumes of LEXIS and GRAY? What a change would be wrought on the face of New England, how would the repulsive assume the beautiful, if a sense and perception of the beautiful, were cultivated by studying the works of the lamented DOWNING. There are lessons of instruction on almost every subject connected with the farm, by THAYER and DANA, together with a host of other kindred spirits, who are sowing broad-cast the fruits of their research and experience. Let it not be said that they "cast pearls before swine." Can anything but careless indifference or culpable neglect prevent the devotion of your leisure hours to the acquisition of that knowledge, so capable of contributing to your prosperity and usefulness and happiness?

Man alone is a recluse. Society makes the citizen, and the attrition of society wears away many a rough block, that juts out, but to disfigure the structure. It is a happy feature of the day, that association is so often made to supersede, or to co-operate with individual action. It checks the rashness and smoothes the asperities, gives union to effort, and harmony to action. There are medical societies and musical associations, teachers' in-

stitutes and missionary anniversaries, all showing how effective is united effort. Is it not time that farmers catch the spirit of progress, and seize the means of improvement, so profitably enjoyed by their brethren in other fields of labor? What a vast good would be done if an association of farmers was formed in every town. Not an association in name only, but a living, acting and working organization; with its regular meetings for discussions and lectures. It is impossible for such a society to exist long without making its mark. Dreamers will be converted into thinkers, talkers into speakers, and sensual indulgences into active intelligence. M.

Chester, N. H., Dec., 1853.

REMARKS.—Most excellent advice; we hope to see it put in practice in your own town. There are plenty of intelligent persons, and those much interested in the Great Art, directly about you, to form a *Farmers' Club*, whose operations shall be of more real value to the permanent prosperity of the town than a donation of \$20,000 would be.

SPRIT OF THE AGRICULTURAL PRESS.

SETTING FRUIT TREES.

The question has been very broadly discussed this last fall, whether autumnal or spring transplanting of fruit trees is best? The subject has been introduced into nearly all our agricultural exchanges, and we find them generally agreeing,—

1. That no tree should be set where standing water will cover its roots through a considerable portion of the winter and spring; leaving the inference that the first important operation in planting an orchard is *thorough draining* if the ground requires it.

2. That trees may be transplanted with the best success while in a state of repose; that is, from the time when the leaves have fallen, to that when the ground begins to freeze, and that if left until spring, they must be taken up before the sap is in motion.

3. That more depends upon the *manner* in which the work is done, than upon the particular season.

PROFIT OF FEEDING CORN TO HOGS.

In the *Ohio Cultivator*, an excellent agricultural journal published at Columbus, Ohio, is an article from the Ohio Agricultural Transactions for 1852, by O. O. SAMS, designed to answer the question as to how much pork a bushel of corn will make.

"It is estimated, from an experiment made by S. B. Anderson, that 100 bushels of corn will produce 1,050 lbs. of gross increase in the weight of hogs. 100 thrifty hogs were weighed and put into a pen. They were fed for 100 days as much corn as they would eat. The average consumption was 100 bushels every six days. The average gross increase per hog for the 100 days was 175 lbs., or at the rate of 1½ lbs. per day.

It thus appears that 1 bushel of corn will produce a gross increase of 10½ lbs. Throwing off

1-5 to come at the net weight, gives 8 2-5 lbs. of pork as the product of 1 bushel of corn. If 8 2-5 lbs. of pork are made by 1 bushel, or 56 lbs. of corn, 1 lb. of pork is the product of $6\frac{2}{3}$ lbs. of corn.

From an experiment made by Samuel Linn, of this county, with 58 hogs, as reported in the Patent Office Report for 1849, $6\frac{2}{3}$ lbs. of corn produced 1 lb. of pork.

From the experiment of the Hon. H. L. Ellsworth, reported in the Patent Office Report for the year 1847, it appears that 3 4-5 lbs. of cooked meal made 1 lb. of pork. This experiment was on a small scale.

Assuming that it requires $6\frac{2}{3}$ lbs. of corn to make 1 lb. of pork, the cost of its production will be seen from the following table. The labor of feeding and taking care of the hogs is not included in the estimates:

When corn costs 12c	$\frac{1}{2}$ bu.,	pork costs 1½c.	$\frac{1}{2}$ lb.
When corn costs 17c.	$\frac{1}{2}$ bu.,	pork costs 2c.	$\frac{1}{2}$ lb.
When corn costs 25c.	$\frac{1}{2}$ bu.,	pork costs 3c.	$\frac{1}{2}$ lb.
When corn costs 33c.	$\frac{1}{2}$ bu.,	pork costs 4c.	$\frac{1}{2}$ lb.
When corn costs 42c.	$\frac{1}{2}$ bu.,	pork costs 5c.	$\frac{1}{2}$ lb.

The following table shows what the farmer realizes for his corn, when sold in the form of pork:

When pork sells for 3c.	$\frac{1}{2}$ lb.	it brings 25c a bu. corn.
" " 4	"	33
" " 5	"	42
" " 6	"	50

THE GLORY AND RENOWN OF NEW ENGLAND.

Mrs. BATEHAM, who conducts the ladies department of the *Cultivator*, from which we have quoted above, has been rambling over New England during the past summer, and thinks "the days of its greatest glory and renown have seemingly passed away." We hope that it only *seems* so—that such is not really the fact. To our eye, New England never appeared brighter and more prosperous than at the present time. The New England mind was never more active, never scattered its blessings more diffusely over the world in the way of its books, its machines and manufactured articles, than at the present moment. Agriculture is certainly at a higher point than it has ever before attained, while the *Homes of New England* are probably not surpassed by any in the world, in the comforts and elegancies of life. There is a higher degree of civilization among all classes than was ever known before. The schools are not only better, but all are required to attend to the means of education; there is room in them for all, of whatever degree, and no good excuse is left for growing up in ignorance and vice. The state of religious feeling in the public mind is better, as all sects have more carefully considered the apostle's injunction to "love one another," which has greatly broken down sectarian divisions. Poetry, painting, music, with all the fine arts, and commerce and manufactures, have all been in healthy progress, while there are comparatively fewer poor, and a greater general intelligence among all; with this increase of comforts and intelligence the duration of human life has also increased. New England is so threaded with railroads, and the communica-

tion from place to place so easy, cheap, and convenient, that it has become much like one great family—we visit and see each other almost every day.

These circumstances are so favorable to physical growth and mental development, that we can annually spare from our homes enough of the sons and daughters of New England to found an "empire in the west. These are the "stars that Westward take their way," carrying with them the stern principles that well sustained them on our "shallow, rocky soil," and which will enable them, (with your assistance) to make the waste land of the West to blossom like the rose. There, Madam, does that look as though the "glory and renown" of New England had passed away! Perhaps we may be honored with a share of your next visit, and discuss the subject more fully.

COMPARATIVE VALUE OF DIFFERENT KINDS OF FIREWOOD.

The *Plough, Loom and Anvil*, gives a table showing the comparative value of different kinds of firewood, which is worthy the attention of all who use wood as fuel.

To those who are in the habit of using wood as a principle article of fuel, a knowledge of the relative comparative value of the various kinds in market cannot be unimportant, particularly as the consumer is thus enabled to judge of the comparative difference in each, and consequently to select the *cheapest*, or that which is offered in market at the lowest price in proportion to its relative value. For this purpose we have compiled the following table, originally prepared from careful experiments, conducted on the most correct and strictly philosophical principles. It shows the weight of a cord of different kinds of wood, when dry, or *seasoned*, and the comparative value of the same, assuming as a standard the shell-bark or white-heart hickory:

	Lbs. in a cord.	Prop. value.	Comp. value.
1. Shell-bark Hickory,	4469	\$1 00	\$7 40
2. Common Walnut,	4321	95	7 03
3. White Oak,	3521	81	6 09
4. White Ash,	3420	77	5 70
5. Swamp Whortleberry,	3361	75	5 55
6. Shrub Oak,	3337	74	5 47
7. Apple Tree,	3115	70	5 18
8. Red Oak,	3083	69	5 11
9. Black Oak,	3102	66	4 69
10. White Beech,	2936	65	4 81
11. Black Birch,	2815	63	4 67
12. Yellow Oak,	2818	60	4 44
13. White Elm,	2692	58	4 29
14. Maple,	2666	54	4 00
15. Buttonwood,	2449	52	3 85
16. Spanish Oak,	2391	51	3 77
17. White Birch,	2363	48	3 56
18. Pitch Pine,	1904	43	3 18
19. White Pine,	1868	43	3 11
20. Lombardy Poplar,	1774	40	2 96

Each cord of wood, when *green*, is estimated to contain 1443 lbs. of water. The farmer, then, who takes a cord of green wood to market, has a load not much less for his team than his neighbor who should put on with his cord of dry white oak, three quarters of a cord of seasoned pine, or make up his load of more than *two cords* of dry white birch. We have always considered the carting of water to market, especially over rough and heavy roads, an unwise and unprofitable business.

AGRICULTURE IN VIRGINIA.

The *Southern Planter*, Richmond, Va., states that owing to the various instrumentalities put in operation, the Committee appointed by the State Society can report that since the annual meeting in December last, the number of members has been increased from 339 to at least 4,000! and the funds in the hands of the Treasurer from \$268 to about \$8,000.

In preparing for their State Show the Society expended \$10,000, and with the prospect that such a large sum would prove an economical expenditure. It affords us great pleasure to notice these energetic movements in the Old Dominion.

MILK AND BUTTER.

The Editor of *The Ploughman* says he has Devon cows and heifers that "will yield one pound of good butter, from four quarts of milk." He states that this result has been obtained "after repeated trials by himself and others, and that there can be no mistake or accidental luck in the matter."

THE MAIZE.

A NEW CORN SONG.

BY W. W. FOSDICK, OF NEW YORK.

"That precious seed into the furrow cast,
Earliest in Spring-time, crowns the harvest last."
FAGNE CAREY.

A song for the plant of my own native West,
Where nature and freedom reside,
By plenty still crowned, and by peace ever blest,
To the corn! the green corn of her pride!
In climes of the East has the olive been sung,
And the grape been the theme of their lays,
But for thee shall a harp of the backwoods be strung,
Thou bright, ever beautiful Maize!

Afar in the forest the rude cabins rise,
And send up their pillars of smoke,
And the tops of their columns are lost in the skies,
O'er the heads of the cloud-kissing oak—
Near the skirt of the grove, where the sturdy arm swings
The axe, till the old giant aways,
And echo repeats every blow as it rings,
Shoots the green and the glorious Maize!

There buds of the buckeye in spring are the first,
And the willow's gold hair then appears,
And snowy the cups of the dogwood that burst
By the red bud with pink tinted tears.
And striped the bowls which the poplar holds up
For the dew and the sun's yellow rays,
And brown is the pawpaw's shade-blossoming cup,
In the wood near the sun-loving Maize!

When through the dark soil the bright steel of the plow
Turns the mould from the unbroken bed,
The plowman is cheered by the finch on the bough,
And the black-bird doth follow his tread.
And idle, afar on the landscape described,
The deep lowing kine slowly graze,
And nibbling the grass on the sunny hill-side
Are the sheep, hedged away from the Maize.

With spring time, and culture, in martial array
It waves its green broad swords on high,
And fights with the gale, in a fluttering fray,
And the sunbeams which fall from the sky—
It strikes its green blades at the zephyrs at noon,
And at night at the swift flying fays,
Who ride through the darkness the beams of the moon,
Through the spears and the flags of the Maize.

When the summer is fierce still its banners are green,
Each warrior's long beard growth red,
His Emerald-bright sword is sharp pointed and keen,
And golden his tassel-plumed head.
As a host of armed knights set a monarch at nought,
They defy the Day God to his gaze,
And revived every morn from the battle that's fought,
Fresh stand the green ranks of the Maize!

But brown comes the Autumn, and sore grown the corn,
And the woods like a rainbow are dressed,
And but for the cock, and the noon tide horn,
Old Time would be tempted to rest.
The humming bee fans off a shower of gold,
From the mullein's long rod as it sways,
And dry grow the leaves which protecting enfold
The ears of the well-ripened Maize.

At length Indian Summer, the lovely, doth come,
With its blue frosty nights, and days still,
When distantly clear sounds the waterfall's hum,
And the sun smokes ablaze on the hill.
A dim veil hangs over the landscape and flood,
And the hills are all mellowed in haze,
While Fall creeping on, like a Monk 'neath his hood,
Plucks the thick rustling wealth of the Maize.

And the heavy wains creak, to the barns large and gray,
Where the treasure securely we hold,
Housed safe from the tempest, dry sheltered away,
Our blessing more precious than gold!
And long for this manna that springs from the sod,
Shall we gratefully give Him the praise,
The source of all bounty, our Father and God,
Who sent us from heaven the Maize!

For the New England Farmer.

COMPARISON OF PLOWS.

MR. EDITOR:—I noticed in your paper of 26th of November a difference of opinion between some of the papers, on the Michigan Plow, which leads me to make the following remarks.

I have tested the Michigan Plow with "Ruggles, Nourse & Mason's" Eagle No. 20 (which I consider one of the best single plows,) to my satisfaction, and find that two yoke of oxen will plow one acre of ground the same depth with the single plow, as easy as three yoke of oxen of the same size can with the Michigan Plow. For this extra work in plowing with the Michigan Plow, I charge one dollar per acre.

The question may be asked, why should the Michigan Plow require more strength to draw it than the single plow? I answer, because the Michigan Plow splits the furrow slice horizontally, and if the inquirer wishes for more reasons, let him take hold of a stone that has a horizontal seam in it, in order to turn it over, and when he gets it fairly on a poise let the top half of the stone slide off and by the time he gets the other half fairly on top of it, he will have a tolerable good idea why the Michigan Plow requires more team to draw it than the single plow.

Now the honest farming community like to hear both sides of the question, provided they think the first side worth hearing. Now for the benefits of the Michigan or Double Plow over the single plow.

First, in furrowing, twenty-five cents. Second, in covering, twenty-five cents. Third, plowing for hoeing first time, fifty cents. Fourth, hoeing first time, fifty cents. Fifth, plowing for hoeing second time, twenty-five cents. Sixth, hoeing second time, twenty-five cents; making in the whole two dol-

lars per acre, leaving a balance in favor of the Michigan Plow of one dollar per acre.

These are facts as near as I can state from what experience I have had on common sward land. Now how much better the crop is, I consider every farmer who tries the experiment has a right to his own opinion. But I am willing to risk my own, that it is not less than a dollar per acre, but have no authority to dispute any man if he should say it was five dollars.

A. G. SHELTON.

Wilmington, Nov. 28th, 1853.

CULTURE OF WILLOW FOR OSIERS.

The attention of many persons has been turned, from time to time, to the cultivation of the Osier Willow, but with indifferent success, for the want of accurate knowledge in the pursuit. The Willow has already become an important item in the commerce of the country, as articles manufactured from it are introduced into most all of the occupations of life. Those interested in its cultivation will find an excellent essay on the subject in the transactions of the Norfolk County Society, for 1852, by JOHN FLEMING, Jr., of Sherborn, and from which some extracts will be given hereafter. The article below was prepared by CHARLES DOWNING, Esq., of Newbury, and we presume may be relied upon.

The culture of Willow, for Osiers, when its principles are well understood, is not difficult, and the profits under good management are very great. The fear that the supply may overreach the demand is not only groundless, but, on the contrary, it is susceptible of proof, that for a long time to come, the demand must increase far beyond the proportional increase of production in this country. It is but about fifty years since England received almost her entire supply from the continent. The long continued wars cut off this supply, and the deprivation was so severely felt that it became a matter of national concernment, and Premiums were awarded for the formation of Willow Plantations. Men of every degree of means, of all ranks, from the Peasant to the Lord, engaged in it, and its cultivation extended very rapidly; (the Duke of Bedford having a plantation of one thousand acres,) yet to the present time prices have not at all declined, but rather advanced. Sang, in his "Osier Plantations," in the year 1812, stating from his own knowledge, says, some good plantations have yielded, annually, for several years, a profit of £25 to £30 sterling; some as high as £40 to £45, but these very favorably situated, and tended with great care. In 1852, from reliable information from different quarters, the good plantations yield from £30 to £40 nett, and some as high as £50; American fields are equally productive, and prices in New York, Philadelphia and Boston about twenty per cent higher.

A great discouragement arose at the commencement of Willow Culture in this country, from the failure of the most vigorous growers of Europe to produce good Osiers—Viminalis, and the celebrated Longskin, of Nottingham—their most popular Osiers, are nearly worthless here, not being adapted to our climate. By one comprehensive that difficulty has been disposed of.

Dr. O. W. Grant imported all the European Osiers of note, and, by careful experiment, ascertained which are suited to our climate, and also which varieties are most valuable. Among many that have proved to be good, three have been found of surpassing excellence:—

1. Triandra—It is perfectly hardy, thrives in a great variety of soils, and is as productive here as any European Willow in its own country. Its rods are long, tough, and pliable, and particularly adapted for all kinds of split work requiring those qualities.

2. Forbyana—Another very valuable one in all respects; and

3. Purpurea, or Bitter Purple Willow—valuable in all respects as an Osier, and particularly so for work that requires long, slender, unsplit wands, of great toughness. The intense bitterness of its bark and leaves renders it exempt from the attacks of beasts and insects, and consequently adapted for making live fences. Lasting fences, very ornamental and profitable, may be made of it, producing a crop of Osiers yearly. This may be characterized as the "Elegant Willow," its leaves and shoots considered; but of the three, Triandra is the most ornamental, having very showy catkins. These compose a complete assortment for basket-makers, supplying all their wants. Salix Caprea makes a tolerable Osier, and, in consequence of flowering very early, is useful for feeding bees. Its catkins make a very beautiful appearance, being very large and of brilliant colors.

To plant an acre, from ten to fifteen thousand cuttings are required; those of vigorous upland growth possess far more vital energy than those of lowland production, and make the most healthy and productive plantations. Cuttings are used from eight to fourteen inches in length; ten to twelve inches is probably the best for deep soils, and not more than eight on very retentive soils; not more than three inches should be left out of ground. They are set in rows three feet apart, and from twelve to sixteen inches distant in the rows. The first two crops will be in proportion to the number of cuttings, but after four or five years they will entirely occupy the ground, even if more than sixteen inches apart; but when the value of the early crops is considered, twelve inches will be found to be the most economical distance.

Willow will grow in any soil, and thrive in a great variety of soils, but gives its best returns only in such as are well suited to its habits. It is a lover of moisture, but does not tolerate standing water, or soil sodden with water nearer than within one foot of the surface during the growing season. Overflowing in winter is not objectionable, nor is overflowing from a freshet in summer, that soon passes off. A very deep, rich, sandy loam, diluvial and alluvial, such as constitutes many bottoms not so much elevated above the stream that winds through them, that by diving down in the previous soil two or three feet in midsummer, the roots cannot find moisture—if kept clear of rampant weeds, will give an astonishingly vigorous growth, yielding three or four tons per acre. The occasional overflowing that would render such of little value for crops, would be rather advantageous to willow. Any retentive soil rich and deeply worked—any clayey loam, or even heavy clay, freed from water by draining, if necessary, will give great returns as Osier fields. Deep alluvial

soil, that has not water standing on its surface, or too near it in summer, is excellent; so is drained swamp, when brought under cultivation. But here it ought to be remarked, that very different considerations should direct the choice of a site for a Willow plantation in this country, from those which obtain in England or on the continent, where labor is very cheap and rent for land very dear, so that the price paid annually for rent and taxes for a good piece of ground, would purchase the fee simple of a piece of ground as eligible in this country. It is true that Willow can pay for draining and cultivating land that is fit for nothing else—but the inference is not legitimate—that because it is adapted for nothing else, it must be well adapted for Willow. But the contrary is generally the case, a low, level bottom, from which a crop has just been removed, if in the Spring properly prepared and planted, would on and after the second year, give a nett per centage, on investment, that nothing else can approximate, and with a certainty that pertains to no other crop.

Cuttings must be prepared in fall or winter, but to avoid being thrown out by frost, not planted till spring; if necessary, they may be kept in a cool place until last of May or June even, without much injury—but April or May is preferable time for planting, or as soon as warm growing weather is established.

Wherever it is practicable, the ground should be deeply worked; subsoiled at least, but better if trench plowed and then subsoiled. Fields that have been previously cultivated will have the advantage of easy tillage, but where the ground is soft and wet, deep and rich, simply turning over the sward with large deep furrows, and following with subsoil plow, will give perhaps as good a growth of Willow as any other preparation. The surface should be made level before setting the willow, on account of convenience in cultivation.

The entire cultivation required the first season, is such as would be given to a crop of corn, and may be chiefly done with a cultivator, on land that is so firm as to admit the travelling of a horse; but simply keeping the weeds down in ground that is too soft is often all that is required, yet great productiveness is generally inseparable from clean culture.

For the second and third years, frequent communications with some successful cultivator, whose knowledge and experience enable him to give precise directions in every stage of operation, will be very important if not indispensable; after that the plantations will be fully established and a sufficient knowledge acquired to manage the business pleasantly and successfully.

FARMERS' CLUB IN FRAMINGHAM.—At the recent annual meeting of this Society, Wm. BUCKMINSTER was chosen President, ABEL S. LEWIS and ABNER HAVEN, Jr., Vice Presidents, J. H. TEMPLE, Secretary, DAVID FISK, Treasurer.

The Trustees, one for each school district, elected on the same day, are J. W. Clark, Hollis Hastings, George Trowbridge, Willard Haven, Metcalf Pratt, W. G. Lewis, Charles Capen, Peter B. Davis, Liberty Chadwick, James Brown, Eben Stone.

The Society voted to meet on Monday evening of each week throughout the winter. Success attend their efforts.

GREEN WOOD.

It is to be hoped that there are not many New England farmers who are in the practice of using *green wood* for their cooking stoves, or for warming their rooms. The wood-house is generally as important an appendage to a New England home, as the barn, and is usually filled with seasoned wood sufficient for a year's supply. But there are some, we observe, who still use wood in its green state for fuel, hauling a load now and then, when the demand becomes imperative, and chopping just enough to appease the clamor in the kitchen.

There are several objections to such a course; first, the *moral effect* is decidedly bad, as it is a requisition upon the women much like that imposed on the Israelites of old; they were required to make bricks without straw, and you require the women to cook, and warm the children without fuel, or at least with wood that contains in every 100 pounds, 35½ pounds of *cold water*. Now it requires time, and patience, and a great stock of good humor, to puff and encourage into steam and vapor 35½ pounds of cold water, in a frosty morning, when the children are to be got to school in season, and the men are to be started for the woods. If this trial occurred only once a week, it might be supported with some degree of complacency; but it comes every day, and many times in the day, and often when care and over labor have fatigued the body and weakened the will. The mind is thus brought into an easily excited state, and gives way to words and actions unnatural to itself when not thus unjustly tried. Green fire-wood should be rejected as the demon of discord in the family; while it smokes, and steams, and sputters, and refuses to toast or roast, or bake or boil, it makes the children sulky and tart, the husband gloomy and severe, and the poor wife anxious and disheartened. Many a scene of domestic felicity has been smoked and sized out of existence, by the use of *green fire-wood*!

In the next place it is bad *economy* to burn green fire-wood, and to show this, conclusively, we give below a statement made by Dr. Lee, in the *Genesee Farmer*, several years ago. He says:

"We have been burning, for the last month, green black and white oak wood, cut from small trees. Our students find on analysis that 100 lbs of this wood contain 35½ lbs. of water and less than one pound of ash. We demonstrated in an article published in the last *Farmer*, that 1000 degrees of heat are taken up in converting water into steam, which occupies a space 1696 times larger than that filled by water. Although the quantity of latent heat contained in a cord of green wood is not increased by seasoning, and hence the latter can evolve no more sensible heat than the former; still, in burning green wood, or wet wood, it is almost

impossible to avoid the loss of one-fourth of the heat generated, in combination with water, in *steam* and *vapor*. Most of the heat rendered latent in these gaseous bodies passes up chimney, where they are condensed, and give out their heat to warm all out doors.

We are anxious to give the most unscientific reader a clear idea of this subject, for it is really one of great practical importance. Look at it, then, in this light: You have divided your 100 lbs. of green oak, beech, or maple wood, into 65 lbs. of dry combustible matter, and 35 lbs. of cold water. Every pound of this water you evaporate in green wood, and *throw the heat away* by the consumption of a part of your 65 lbs. of fuel, and then take the heat evolved by the balance of your fuel to warm your room. How many ounces of perfectly dry wood are required to transform a pound of water into steam, we cannot at this moment say; nor can we determine what portion of the heat taken up by steam in the combustion of green wood is again evolved by condensing in the room where the fire is made. We believe, however, that the usual loss is about equal to one-third of all the heat contained in 65 lbs. of kiln-dried wood; and that the gain in seasoning wood under cover is at least 25 per cent."

For the New England Farmer.

HISTORY OF VEGETATION—NO. 2.

In accordance with my design at a former writing, I now purpose to follow out briefly some of the more important changes which take place in the process of vegetation, after the plant has become fully developed.

Vegetable economy—so to speak, is a subject fraught with a considerable interest; especially when we consider the close analogy there is between the vegetable and the animal kingdom. But yet how many there are of us, even, who have been "brought up in the woods," with plants for our almost constant companions, who can hardly recognize in a tree an organic thing! Nay, how many who are entirely ignorant of its internal economy, or the various "ways and means" by which it attains to its gigantic proportions. It has been said, and truly, that nature was like unto a great book, always spread out before us—always replete with instruction; yet while it is the high privilege of the farmer to be ever under her immediate guardianship, to hold daily communion with her "visible forms," of what avail is it, indeed, if her "various language" be to him, after all, a dead letter. Of what avail is it, we say, if there are "sermons in stones" or "books in the babbling brooks," if they are written in a language which he will not take pains to understand. We often spend years over some antiquated product of ancient lore, or conning some critic's

—articles

On Hebraic points and the force of Greek particles,"

yet with how little zeal do we employ the means within our reach for gathering up those lessons of wisdom, written "in the stones" on the blade of grass, or in "the babbling brooks," or which are made so strikingly manifest in the history and economy of that most common product of nature—a tree. But to proceed more directly with our thesis.

First. The *bark*, like the skin of the human body,

is composed of three distinct coats, the *epidermis*, the *paranchyma* and the *cortical layers*. The *epidermis* is the external covering of the plant; it is a thin transparent membrane, and is either *silicious* or resinous in its nature. In those plants noted for strength or hardness, the *epidermis* is almost entirely *silicious*, while in the opposite variety, it is resinous. The design in thus uniting materials of this character in the composition of the outer covering of the plant must be obvious. The hardness of the one and the resin from its want of affinity for water, in the other, preserves the plants from the destructive effects of violent rains, severe climates, or inclement seasons.

The *paranchyma* is immediately beneath the *epidermis*; it is that green rind which appears when we strip a branch from a tree or a shrub from its external covering. It also forms the green matter of the leaves and is composed of tubes filled with a peculiar juice. This juice, it may be well to say in this connexion, differs much in its nature in different species of vegetables. For instance, it is sometimes *saccharine*, as in the sugar-cane, sometimes resinous as in firs and evergreens, sometimes of a milky appearance, as in the laurel. In breaking a young shoot, or in bruising a leaf of laurel, we shall observe this piece to ooze out in great abundance. And it is by making incisions in the bark, that pitch, tar and turpentine, are obtained from firs and pines. And, by the way, the well known durability of this species of wood is chiefly owing to the resinous nature of its peculiar juices. With regard to the *chief* use of these juices, it is supposed that it is from these that the plant more immediately derives its nourishment.

The *cortical layers* are immediately in contact with the wood, and consist of small vessels through which the sap descends after having been elaborated in the leaves. The *cortical layers* are annually renewed, the old bark being converted into wood. Immediately beneath the *cortical layers*, then, is the *albumum* or wood, through whose tubes the sap ascends. The wood is composed of woody-fibres, mucilage and resin. They are disposed in two ways, longitudinally and concentric. The former is called the *silver-grain* of the wood, and the latter the *spurious grain*. These last disposed in layers from the number of which the age of the tree may be computed, a new one being produced annually by the conversion of the bark into wood. The oldest and most internal part of the *albumum* is called *heart-wood*. It appears to be dead, at least no vital function, are discernible in it. It is through the tubes of the living *albumum* that the sap rises. These, therefore, spread into the leaves and there communicate with the extremities of the *cortical layers*, into which they pour their contents.

Now, if we have done with the anatomy of the plant, we will treat a little more particularly upon that which constitutes its "life-current" and which amounts almost to a circulation.

First. The sap, evidently composed of water absorbed by the roots, and, like the blood in the human system, holding in solution the various principles which are to contribute to the nourishment and support of the living thing, ascends through the tubes of the *albumum* into the stem, and thence branches out to every extremity of the plant, where it is elaborated by the leaves, (by which operation its super-abundant fluid is

thrown off, and itself reduced to a proper consistency to be assimilated to all its parts) it then makes its way downward through the vessels of the cortical layers, and in its progress deposits in several sets of vessels with which it communicates, materials on which the growth and nourishment of the plant depend—descending no farther and in no greater quantities than is required to nourish the several organs, so that while the sap rises and descends in the plant it does not undergo a real circulation.

The last of the organs of plants is the *flower* or *blossom*—which produces the *fruits* and *seed*. These may be considered as the ultimate purposes of nature in the vegetable kingdom. But the seed which forms the final product of the mature plant we have already examined.

These then are the principal organs of vegetation by means of which the several chemical processes which are carried on during the life of the plant are performed.

R. H. H.

Burlington, Vt., 1853.

For the New England Farmer.

CHINESE MANURES.

Some time since a correspondent of the *Farmer* inquired how it is that,—while England not only imports breadstuffs, but ransacks almost the whole world for guano, bones, and other fertilizing articles to keep up the produce of her fields, and, in our own country, as a general rule, the soil deteriorates in proportion to the length of time it is cultivated,—the Chinese, without commerce and with but few domestic animals, have maintained the fertility of their soil for the successive centuries during which it has supported a wonderfully dense population?

With the hope of obtaining an answer more satisfactory than any I have found in the few books on China within my reach, I addressed a note to the Rev. Mr. Style, of the Episcopal Mission to China, who is now on a visit to his native land, after a residence of some years in China. Believing his kind reply will prove a valuable contribution to the columns of the *Farmer*, I forward it to you for publication.

Providence, R. I., Nov. 29th, 1853.

STILMAN FLETCHER:—Dear Sir,—Many and pressing engagements have up to this time hindered me from replying to your letter of Oct. 4, in which you make certain inquiries concerning the method of manuring practised by the Chinese. I will do my best to answer your question; though, in doing so, I must beg you to bear in mind that I can only speak of what has fallen under my own observation in the city and neighborhood of Shanghai.

The most important manures there used were human ordure and urine (especially the latter) diluted with water and poured over the vegetables as they grow. It is also thrown over the rice fields as they stand partly flooded with water. In order to obtain this valuable, though not delectable manure, the country people send boats up to the city every high tide, and into these are emptied the contents of all the privies and urinals, which

are to be seen all through the streets—not to mention the contents of the chamber utensils which the women bring out every afternoon, as a matter of course—every one to the back door of her own house, where it is received in larger buckets by men who come round for the purpose, and whose occupation it is to carry it off to the boats before mentioned. The public “necessaries,” which stand generally in rather conspicuous situations, are quite valuable as property, and the money obtained for these *chamber products* are among the perquisites claimed by the servants of a family.

One other principal article of manure is the oil-cake which results from the compression of a small bean (grown chiefly in Shangtung). After being bruised and steamed, this bean yields a considerable quantity of oil, and the cake that remains is found quite valuable for its fertilizing properties. This also is applied as a liquid, the cake being steeped and stirred up in a good deal of water. Besides being thus used, the cake is given in small quantities as feed for cattle—that is, for the water-ox or buffalo, which is the animal employed almost exclusively in working their land. It is to the excrement of these animals that they are indebted for those compost heaps to which your letter alludes; though the Chinese also make heaps or rather pits of the mud which they draw up from the bottom of their canals, and into which they throw and pack down straw and weeds, and all kinds of garbage and corruptible matters. These after a while are spread over their fields. Ashes of wood and even of straw, are carefully preserved, and used with the most pains-taking economy—a small handful being put over the exact spot where the vegetable is expected to spring up. Even the hair which the barbers shave off the heads and chins of their customers is used as a manure, and sold for so much a pound. Boys go about the streets with baskets and little rakes, and may be seen gathering out particular sorts of dung (especially that of dogs) for particular purposes, with all the fastidiousness of epicures. Tea leaves are also counted valuable for manuring purposes.

These, as far as I can recollect, are all the articles used in the parts to which my observation has extended. It may be as well to remark, perhaps, that the plain on which Shanghai stands is one of uncommon extent and fertility, indeed, Mr. Fortune (with whose works on China you are perhaps acquainted) supposes that there is no similar extent of surface upon the face of the earth under such high cultivation—a succession of three crops—beans, wheat and cotton, is sometimes raised on the same land in one year.

As some compensation for my delay, I will send you by the first convenient opportunity, some native Chinese pictures delineating the successive stages in the raising of tea, rice, silk and cotton.

It will afford me much gratification to know that I have contributed in any degree to the dissemination of *useful* knowledge even on such an unsavory subject—adding only this one remark that the Chinese *save everything* which has a manuring value. I remain, dear sir, very truly yours,

E. W. STYLE.

The “Native Chinese pictures” alluded to by Mr. Style, are neatly done up in four volumes, of twenty-four colored paintings each. Their “perusal” has afforded me a rare treat, by the artistic

skill displayed, by the information they afford, and by the rich vein of the humorous which pervades the whole. But I must defer a particular description of these hieroglyphical delinations to a future time, in the hope of being better able to read them understandingly. S. R.

Winchester, Dec. 5, 1853.

SUPERPHOSPHATE OF LIME.

DOMESTIC MANUFACTURE.—The discussion respecting the use of superphosphate of lime still continues in many of the agricultural papers, although the real question seems to be, not whether the superphosphate of lime is useful and profitable as a manure, but whether those who manufacture it, and supply the market, do "*the honest thing*," and really sell what they pretend to. We all know that animals, in order to have a full, healthy increase of bone, &c., must take into their stomachs food that contains phosphate of lime—that this food must be derived either directly or indirectly from the crops of the earth, and that these crops must derive it from the soil in which they grow, and if the soil does not contain it, whoever cultivates that soil, must supply it in some form of manuring or other.

We all know that the bones of animals, after having been formed in part of phosphate of lime, will, as matter of course, supply it again to the soil, if suitable chemical action be brought to bear upon them in such a manner as to decompose them, and liberate the several ingredients from the affinities which bind them together in the form of bone. Hence, every bone that you see kicking about by the wayside, contains valuable matter for the growing crops, and might very easily be made useful as a dressing to the soil.—But how shall this be done? We have frequently given directions how the farmer could do this, in a small way, but, as line upon line and precept upon precept is as good in farming as it is in morals, it will do our readers, we *opine*, no harm to have their attention turned to the subject again. Some very plain directions for doing the work of decomposing bones in a domestic way, were given last week in the "*American Agriculturist*," from which we will copy a portion, and as you may wish to refer to these directions, from time to time, it will be well to keep them in some convenient place, for the purpose of referring to them occasionally, until the process is well fixed in the mind.

TO MAKE SUPERPHOSPHATE OF LIME.—Some bones, some sulphuric acid, and some wood hooped barrels, or half hogsheds, are all the articles needed.

After placing the barrels in a convenient place, a few carboys of sulphuric acid may be obtained. These carboys hold from 120 to 180 lbs., and by stipulating to return the carboys, you can generally obtain the acid for two or three cents a pound. Put into the barrel a quantity of water, and then pour in some acid. The acid should be added by a small portion at a time, and the mixture be allowed to cool before more is added, as great heat is produced by mixing acid and water.

You want about two and a half quarts of water, for one quart of acid, although strict accuracy in this particular is not needed. Use a pitcher or earthen vessel for measuring the acid and water.

You may now put in the bones; they would be better to be crushed or broken up; and you may put in as many as you can punch down into the liquid. As they settle down you can add more from time to time. Let this stand from six to twelve weeks, stirring it with a stick from time to time, and you will have a liquid superphosphate of lime, as good as can be made.

When you wish to apply it to the land, pour out the liquid, leaving the undissolved bones still in the barrel, and mix the liquid with some unleached ashes,—say two quarts of ashes to a gallon of the liquid, and then mix the whole thoroughly with a large quantity of dry manure, or even with any dry soil, and it is ready to be sown upon the field broad cast, or put in the hills with the seed. If put in direct contact with the seed, be sure to have it well mixed with a large quantity of muck or other substances, say two or three gallons to a cartload. This mixing can be done with a shovel on the floor or ground.

Improved superphosphate of lime is made by adding something that contains a large quantity of ammonia, and in order to make it of yours, as prepared above, omit adding any ashes, but add more or less urine, or liquid from the manure heap, and then dry with muck as before directed.

After pouring out the liquid superphosphate from the barrel, you can add more water, acid and bones, and let the process go on anew. The article is just as good or even better after it has stood one or five years. Should the hoops chance to burst off, pour the liquid into another vessel, or set it on the top of another, and let it thro into it by pushing out the bottom.—*Maine mer.*

CHARCOAL—ITS ALIMENTARY CHARACTER.

Some farmers are disposed to ridicule the idea that in the simple and hitherto disregarded article of charcoal, the agriculturist possesses an assistant of great and surprising energy. Yet such is the fact, indubitably, unless all science is to be regarded as a mere house of cards, built up but to be thrown down again. But it is not for the purpose of defending it against the cavilling and carping spirit of such as deny its claims to the character of a manurial agent, that we now take up the pen, but rather to present a few isolated facts in reference to its capacity of acting in some cases, and under certain modified, and somewhat peculiar circumstances, as a substitute for the food of animals, instead of as an aliment of plants. The incidents or facts given below in illustration of the truth of the position suggested, are from the most reliable sources, and may be depended on as strictly and rigorously correct.

Many years since, while one of the Liverpool traders was fitting out in the port of New York, a pig was missing from on board, and was supposed to be lost. After taking in her cargo, the vessel put to sea. A few days after, it was found that the pig supposed to have been lost, was in the coal-pen, but as the location of the latter rendered approach somewhat difficult, it was concluded

ed to leave the animal to his fate. At the termination of the voyage his pig-ship was not only found to be alive and well, but very considerably improved in condition, though with the exception of charcoal, there was nothing within his reach which he could have swallowed from the commencement to the conclusion of the voyage—a period of nearly thirty days.

"A family being driven from the city of New York by the fever, were absent six or eight weeks before it was deemed prudent to return. A number of fowls confined in the loft of a work-shop, were forgotten at the time of leaving, and as it was known that there was nothing provided for their subsistence, it was expected on their return that they would be found starved to death. To the astonishment of all, the fowls were found alive and fat, though there was nothing upon which they could have fed, except a quantity of charcoal and shavings; water being supplied from the grind-stone trough."

The following experiment was made by a gentleman of New York, to whom the foregoing facts were communicated by a friend.

"He placed a turkey in a box or enclosure, four feet long, two feet wide, and three or four feet high, excluded light as much as could be done, and allowed a free circulation of air, and fed the turkey with soft brick broken fine, pounded charcoal, and six grains of corn per day *(xwas kept locked.* At the end of the month, the turkey was killed in the presence of several gentlemen, was large and heavy, and on being opened was found filled with fat. Nothing, on dissection was found in the gizzard and entrails but charcoal and brick. Last winter the experiment was repeated, and with the same success."

A late writer on this subject says:—"When it is remembered that wood, sugar, and several other substances, some of which are most nutritive, are compounded of nearly the same original elements, it would seem possible, by animal chemistry, to convert them to the purpose of sustaining animal life; though all experiments with wood or charcoal have failed."

MANAGEMENT OF POULTRY.

Farmers may gather some useful information upon the subject from the following extract from an English paper:—

Poultry House.—The floor should be cleaned at any rate once a week. It should be sprinkled with sawdust, ashes, peat, or, best of all, peat charcoal. The nests should be lined with moss, heath, or short straw; neither long straw nor hay should be used—the darkest nests are preferred by the hens. A poultry yard should contain: 1. A grass plot; 2. Fine gravel; 3. Slaked lime or other calcareous matter; 4. Ashes kept dry by being placed under cover; 5. Pure water. Eggs: Hens of the best variety will lay in a season from 160 to 210 each, or an average of 185, which, at the rate

of even 11d. (22 cts.) per score, will realize 9s. 16d. (\$2.40) per hen. Breed: Evidently the best are the Dorking, and "fowls which have black legs are the best for roasting, while those [with white legs are the best for boiling." For laying, the Dutch every-day layers or the Spanish are excellent. Sitting: Having observed that the earliest chicks in the neighborhood were every year in possession of the same person, we were induced to ascertain the cause. We found that the eggs were not taken from the nest, and as soon as she had about 13 she commenced to sit. Fowls, indeed, in their native haunts, never lay more eggs in a season than they can hatch. Those who keep Dutch every-day layers, or the Spanish hen, should keep three or four Dorking hens to do the hatching business. Remember that no success can be expected from poultry keeping—1st. If their houses be damp, cold, unclean or badly ventilated; 2d. If the food they eat does not closely approximate to that which they get in a state of nature, viz.: a mixture of vegetable and animal food; 3d. If the water they drink be stagnant, the drainage of the manure heaps, &c.; 4th. If the strongest and handsomest be not bred from.

For the New England Farmer.

DOUBLE PLOW.

MR. EDITOR:—I have just read in your paper of this date, a letter from that genuine Yankee farmer, Mr. S., of Wilmington. His remarks always indicate careful observation and sterling common sense. When he says that it takes *one-third* more power to operate the double plow, splitting the furrow slice into two parts, say one three inches thick, and the other five—than it does to turn a furrow slice of the same width and depth, with a single plow—his remark is not in accordance with my observation. I have tried the same experiment with considerable care, and came to the conclusion that the double plows required no additional power.

In proof of this, a dynamometer was applied to both, and the power estimated in several consecutive furrows, and the best opinion that could be formed at the time, was, that the double plow went the easier of the two. I cannot perceive the force of the illustration drawn from friend S.'s *split stone*—though I freely admit he knows much better about handling stone, than I do. With the other propositions in his letter, I fully accord. Observations from such men, drawn from the farm itself, are what are wanted for instruction. I am glad that the farmer of Wilmington has taken hold of this *double plow*. He has long since shown the public how to grow the best orchard in his county; I hope he will continue to use his plow, until he points out the way to improve the average of the crops of Indian corn, throughout the county, from 35 to 50 bushels to the acre—as I am confident can readily be done, with proper attention.

Dec. 10, 1853.

REMARKS.—In another column, we have given some remarks on the same subject from the *Country Gentleman*. The double plow is gaining friends, and it is important that it should be well understood.

EXTRACTS, REPLIES, &C.

EGGS AND BUTTER.

D. G. HITCHCOCK, Augusta, Ga., inquires :—
 "What is the best method of preserving eggs? How should butter be put up to keep it sweet? and what will restore it to its natural taste when it has become strong or rancid?"

Eggs packed in fine salt, always with the small end down, will keep in this climate, for several months, sweet and sound. We have kept them for half a year without perceiving the least change in their flavor, by packing them tightly in a cask, and pouring over them lime water, about the consistency of whitewash, or a little thinner. The lime water acts upon the shells, so that if they are immersed several months, the shells will be found somewhat thinner than when put in.

Butter made properly is very easily preserved. The cream should be churned *while it is sweet*, the buttermilk thoroughly *worked out*,—not *washed out* with cold water,—about an ounce of salt applied to a pound, packed away in the tub closely, and kept as much as possible from the air. This is the whole operation of making and keeping good butter. It is not the pure butter, which is an oil, that becomes rancid, but the buttermilk that is with it. We have seen a statement from a French paper, that the bad taste and smell of butter may be entirely removed by working it over in water mixed with chloride of lime. The discovery was made by a Brussels farmer whose practice has been to take a sufficient quantity of water to work it in, and put in it from 25 to 30 drops of chloride of lime for every 10 pounds of butter. When it has been worked until the whole has been brought into contact with the water, it should be worked again in pure water, when it will be found sweet. This plan may easily be tested, and we should think it worth while for those dealing in butter to try it.

THE YELLOW LOCUST.

Information is desired as to the best method of cultivating the Yellow Locust. (a.) How is the seed to be prepared, where to obtain it, and price; (b.) the proper season for planting,—how deep and how far distant for *Forest wood*? If you or any of your correspondents will answer the above questions you will oblige many

Windsor, Vt., Dec. 3, 1853. A SUBSCRIBER.

REMARKS.—(a.) The seeds of the *Yellow Locust* should be sown in a rich, free loam, an inch or two apart every way, and covered with light soil from a quarter to half an inch deep. The seeds may be sown in the autumn or spring, and under favorable circumstances, the plants will be from 2 ft. to 4 ft. high the following autumn; the largest may then be removed to where they are to remain, and the others transplanted into nursery lines. If the seeds are not sown in the autumn it would be better to keep them in the pods until spring, but in a dry state.

(b.) COBBETT recommends steeping the seeds in hot water, but we should not approve it. If it is particularly desired to sow the seed at a late day in the spring, in order to save one season, it would be well to steep the seeds for a few hours in warm water just before sowing. The seeds may be obtained at Ruggles, Nourse & Masons, at a price ranging from 50 to 75 cents a pound. We will refer to the subject again, and speak of the locust more at length.

For the New England Farmer.

COAL ASHES.

Increased attention is now being accorded to this article as a manure. Men of science have ascertained that it possesses intrinsic value, and practical farmers are testing the correctness of scientific deductions, by experiment. The editor of the *Germantown Telegraph*—T. R. FREAS, Esq., says:

"It is our opinion that these ashes are more or less valuable as a manure, according to the character of the soil to which they are applied. To hard land, and an unfriable soil, or where clay predominates, we believe anthracite coal ashes will prove of much value, as our limited experience would confirm, having used the ashes as a manure, for ten or twelve years, in a limited degree, and firmly believe it to possess nutritious properties, to a desirable extent."

Professor Norton, whose position in the scientific world entitles his opinions to high respect, expresses himself in much the same way, and at the late scientific convention, Mr. J. B. Bunce, a chemist attached to the Yale Laboratory, presented a communication on the subject of the soluble ingredients of anthracite coal ashes, and the applicability of the latter to manurial purposes. Mr. Bunce finds that water "dissolves between 3 and 4 per cent. of both red and white ashes, while acid from 17 to 18½ per cent. The soluble matters consist principally of alumina, iron, lime, and magnesia; but there is also some soda and some potash—together, from 1.8 to 3.3 per cent.—nearly 2 per cent. of phosphoric acid, and from 3 to eight per cent. of sulphuric acid."

The presence of these acids, in connection with the alkalis, the lime and magnesia, give a value to these ashes, and in the opinion of Mr. Bunce, "would justify their extensive use for agricultural purposes."

H. D. W.

FLUCTUATIONS IN FLOUR.—The *Baltimore American* contains an interesting table on the fluctuations in the wholesale price of flour in the three first months of the year from 1706 to the present time. In March, 1706, the price was \$15 per barrel; in Jan., 1800, \$11 per barrel; in March, 1805, \$13; during the war 1812-15 the highest price paid was \$11; in 1817, \$14.25 was paid; in March, 1821 it was as low as \$3.75; from that time to 1828 it did not go above \$7; in 1829 it was as high as \$8.50; the next year as low as \$4.50; in 1837, \$11, (the time of the flour riots in New York); in 1838-9, \$8; in 1841 it was down to \$4.50; in 1843 to \$3.87; in 1844, \$4.25; in 1845, \$4; and from that time to the present did not go above \$6 in the months named. In the early part of 1853, flour was as low as \$5.25 per barrel; now it is much higher.

GRAPE VINES—BEARING AND PRUNING.

Many of our people are now supplied, until the first or middle of January, with delicious Isabella, or other GRAPES, raised on their own premises, without the aid of artificial heat, or of any unusual care, or expense. In favorable spots, by the sides of buildings, we believe the Isabella will ripen every year, and when once trained there, and properly cared for, it will remain in a thrifty and bearing condition for many years.

The grape loves a moist soil, but not one where water stands in it. An excellent spot is near the back door of the house, where it will be convenient to throw sink water or suds from the wash tubs, several times a week.

The proper time for pruning is in the autumn, soon after the fall of the leaf, and in this operation very much depends, as to the success you may meet with. We give herewith, from COLLEGE'S Fruit Book, some of the different forms of training.

THE CANE, OR RENEWAL SYSTEM.—The first season one branch is trained up; in the fall this is cut back to 3 or 4 eyes, and the next season another is trained up, and the first is extended; both are then laid down and trained horizontally, near the surface; and from each a cane is trained up, (a. a.) The next season these will bear fruit, and two more canes, (b, b,) trained up to bear fruit the next season, when a, a are cut out near the horizontal branch, leaving one eye, and new shoots trained, and so on. Dr. W. C. Chandler, of South Natick, Ms., trains in this way, and he has sent us fine Isabellas an inch in diameter. Some train up the main vine perpendicularly on a building, to a convenient place, and then extend canes horizontally, and renew as above. The cane system gives excellent fruit, as it is always on new wood; but the yield is generally larger by spur or fan training. The canes should be as much as 2 feet apart. If the vine is strong, the horizontal branches may be extended, so as to have 8 or 10 canes.

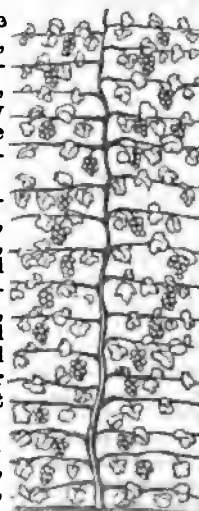


The Cane System.

THE SPUR SYSTEM is the training up of the main stem, and of spurs horizontally, cutting back the spurs, annually, to 2, 3, or 4 eyes of the new wood, according to the strength of the vine, and number of the spurs.

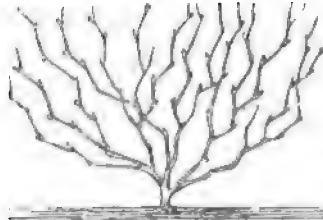
When the spurs have extended too far, cut out a part, yearly, training up new ones, thus changing all the wood to new; and as the vines become old and unproductive, cut down part at a time, and train up new ones. This will combine the cane and spur method, and is an excellent system.

THE FAN OR TREE SYSTEM, or other convenient modes, are practised in vineyards, and in common garden culture, or in training grapes in



The Spur System

yards, by walls, trees, buildings, &c. In gardens or vineyards, a trellis may be formed by setting posts, or stakes 6 or 8 feet high, and nailing on narrow strips of boards, or stakes alone are sufficient, if set 15 or 20 inches apart. In vineyards, where the vines are about 3 or 4 feet apart, sometimes only one stake is set to a vine, and the lateral or oblique branches are trained to the neighboring stakes.



PRUNING of grapes is not generally well understood. Some do not prune at all the proper season; they have a mass of vines and only a little fruit, and that poor. Another absurdity, which is often added to the above, is cutting off the young shoots in summer, just above the fruit, and sometimes still worse, picking off the leaves to expose the fruit to the sun.

The sap ascends to the leaves, and there mingles with matter, absorbed by the foliage, then it is digested, or elaborated into food, which descends to nourish the plant. So essential are the leaves, that the blight on the foliage destroys the fruit, and a frequent repetition is death to the plant. The leaves, not the fruit, should be exposed to the sun. We urge this point, as thousands mistake, and grapes are generally mismanaged.

As pruning the vine young prevents the growth of the roots, but little should be done for a year or two after it is set. In Nov., or early in Dec., all vines in open culture should be pruned liberally. If pruning in spring, before leaved out, they will bleed; they may bleed in spring if pruned in winter. In pruning rather tender vines, leave more wood than is needed, as some may be killed, and finish pruning in spring as soon as the leaves are nearly developed, when the life of the vine may be seen. In summer allow a good growth beyond the fruit, and about midsummer, pinch off the ends of the branches, to check them, and cut out feeble laterals, and branches on which there is no fruit; then there will be much foliage to absorb the matter, and prepare nutriment; and by checking the growth of wood, it will be appropriated to perfect the fruit. The two great errors are in neglecting to cut off useless wood in fall, and in depriving the plant of useful foliage by close pruning in summer.

CAREFUL USE OF HORSES.—An acquaintance lost his horse a few days ago, in a manner that would suggest an habitual caution in driving. The horse, a valuable one, well kept, in good spirits, and in perfect health, was taken from the stable and driven. He had ascended a long and hard hill within the first mile of driving, and as soon as the summit was reached, the driver, as is the habit of many, touched him with the whip; he sprang, stopped, staggered and fell, and by the time the driver could alight from the carriage, he was dead. An examination showed that a large blood-vessel near the heart had been ruptured.—*Farmer and Planter.*

For the New England Farmer.

REPORT

OF THE TRANSACTIONS AT THE VETERINARY SCHOOL OF ALFORD.

BY GEORGE H. DADD, VETERINARY SURGEON.

During the last sessional year, students at this valuable institution have had rare opportunities for acquiring a knowledge of various branches, in veterinary science; from their annual report we learn, that the number of animals admitted for treatment, and returnable defects, or as subjects of surgical and therapeutic experiment, are as follows:

Of the horse tribe.....	1041
Of the bovine tribe.....	23
Of smaller species.....	383
	1446

Animals submitted to consultation were,—

Horses.....	6510
Cows.....	53
Ames and Mules.....	80
Dogs.....	397
Goats.....	77
Cats.....	4
Pigs.....	3
	7044

Making in the aggregate 8490 animals over which the students have extended their observations.

"If we add to this the number returned the previous scholastic year, 7994, it will be seen that the pupils receiving their diplomas, after having spent two years at school, have had opportunities of instruction in veterinary medicines and surgery from the considerable number of 16,484 subjects of different species."

We sincerely hope that ere the year 1853 has passed, to be able to report on the transactions of an *American veterinary school*! Such institution is surely needed; for the people of this country are now in the same condition regarding veterinary matters, as existed among those of the mother country previous to the endowment of her veterinary university. And if ever we should be visited by those fearful epidemics, or epizootics, that have to such an alarming extent prevailed throughout the British dominions, the pestilential sword will be no less keen, nor destructive here, than it was in the former country. But we have enough at the present time to arouse our agriculturists from their long slumber of indifference to united action for the advancement of a science, which has, and is still calculated to sow broadcast the germs of usefulness. It is well known that there are constantly occurring among various descriptions of live stock, thousands of premature deaths, and a like number of unnecessary cases of disease, every year, which might be prevented by the aid of veterinary science. Many of our farmers have, to their sorrow and mortification, discovered that the offspring of many fine and costly animals rapidly degenerate, and they know not the why nor the wherefore. Then, again, observe the countless number of malformed, and otherwise defective horses that are to be met with, in all parts of the Union; inheriting through ancestral descent a broken down constitution, a weak, porous, bony structure, which sends out its morbid growths, in the form of spavin, ringbone, splent and other onerous deformities; to the utter ruin of the subject's reputation, and his owner's anticipations.

Does the farmer seek a remedy? If so he should read the *Book of Nature*, as it is written by Omnipotence on the face of universal creation, and recognize there through the intelligence of man, in germination, growth and maturity of both animate and inanimate matter. Let the farmer who is thirsting for knowledge, knock at the door of veterinary science, and it shall be opened unto him, and he shall there learn by what means races of animals degenerate. It has been discovered, and the same is true of brutes, that malformation, decrepitude and premature death result from disregarding the immutable laws of nature. Ask the surgeon how and by what means the sons of Adam deteriorate, and he will tell you they have violated God's uncompromising laws, as they apply to our mental and physical natures. Do you desire proof of this? If so, you are referred to the Nobles of Spain and Portugal—to the lunatics of this, and other countries, and to the countless hosts of weak, puny, living—yet half dead—of all nations, that are to be met with—the architects of their own infirmities. If other and more convincing proof be needed, we have only to contrast the stalwart frame and iron constitution of our departed ancestors with the present exotic and diminutive race, and the difference appears almost as great as that now existing between the *lion* and the *lamb*. Hence there is a fine field for American talent and industry, in that branch of veterinary science known as comparative physiology. Finally, if it were not for the enterprise manifested by our wealthy agriculturists, in importing stock from abroad, and thus mingling *good blood* with the common herd, the live stock of this country would be little else than walking skeletons, fit subjects only for some friendly epizootic. Let a small portion of the money, now expended for the purchase of foreign stock, be invested in standard works on the collateral branches of veterinary science, to be studied in our schools and universities; and a little sum be appropriated for endowing a school like that at Alford, then our native stock might be so improved and perpetuated as not to need foreign aid.

For the New England Farmer.

A POUND OF BUTTER TO A GALLON OF MILK.

This is the question. The veteran Editor of the *Mass. Ploughman* says he has a stock of Devon cattle, each and all of which will do this; and he challenges the world to show the contrary of this. This is toeing the mark. This is coming up to the scratch boldly. Mr. B. knows what he is talking about, and understands what he says. If his cows and heifers, be they Devon, or what not, will do this, it is more than any other set of cows ever have done, in this or any other country. If they will not do this, then his statements are calculated to mislead. Mr. B. must know it to be folly to make such statements, unless they are true. Within three months, it has been avowed in his editorial columns, speaking then in relation to Jersey cows, that no animal would do this. I then supposed what he said was true. I supposed the statements made about the Jersey cows, at Lowell and Dracut, were not true. I supposed there was some *gum-game* in this matter. But if what Mr. B. now says is true,—I admit that I have done injustice to the Jersey

cows, on the Merrimack. The richest produce that I have ever known from a cow, and she was the best cow I ever knew, was *one pound of butter to one and a quarter gallons of milk*, taken from the cow, under circumstances most favorable.

I do not say, Mr. Editor, that what Mr. B. says of his Devon stock is not true,—but I do say, that I will find the man, able and willing to purchase as many animals as he will bring on, that will yield a pound of butter to every *five quarts* of their milk, at any time within *four months* of their calving;—and pay therefor, double the fair market price for such cows.

This is not vain-boasting—but is an offer made in good faith. Come, friend, will you stand your hand?

Dec. 15, 1853.

ESSEX.

DRY FOOD.

There are numerous disadvantages necessarily attending the feeding of neat stock exclusively on dry food. Horses, oxen—and in short, all domestic animals—fed on cut hay in a dry state, obstinately refuse, after a time, to consume all that is given them. They become fastidious, and consequently less healthy and thrifty in condition than when fed partly on moist or succulent food.

The process which experience has demonstrated to be the most judicious and economical, and, at the same time, the best adapted to promote the several objects contemplated by the feeder is the following:—

A trough, or other suitable vessel of sufficient capacity, is to be provided, and into which a sufficiency of cut oat, rye, or wheat straw, stalks or hay, is to be put, to furnish all the animals with a single meal. For every *three* animals to be fed, add four quarts of meal with just enough water to moisten it, and let it stand for several hours, or if practicable, till incipient fermentation has commenced, and a slight acidity is perceptible. In this state feed it to your animals, and you will find that not a particle will be refused by them, and that they will continue in better condition than when fed exclusively on any other feed. If desirable, the process of preparing the food may be further systematized by having several troughs for mixing the ingredients. This will enable the feeder to prepare food in advance of his wants, and consequently to have a feed always ready at the hour it is wanted. A straw-cutter of the latest and most improved pattern, should be found on every farm. It will enable the husbandman to work up, to good advantage, a large amount of material that would otherwise possess no actual value except for manure. By cutting corn stalks, tops and butts, fine, mixing with them a quantity of roots or apples chopt into small pieces, or rapt with a rasping machine, and scattering over them a very small quantity of meal of any kind, together with a little salt, a very palatable and nutritious food will be secured, and one on which

most animals will winter as well as upon the best English hay.

Pumpkins and squashes, as well as roots and apples, are often prepared and mixed with refuse fodder in this way.

But—as we believe, the true way of preparing feed for farm stock of all kinds is not yet practised in the country. We believe the time will come when *steam* may be used, so that after paying the interest of the cost of the fixtures and fuel, a saving of nearly or quite *one-fourth* of all the hay, roots and grain may be made, and that the farmer may have that surplus over and above what he now has, to sell. Who, among our enterprising farmers, will commence the experiment?

THE RAT AND THE WEASEL.

My informant states that a farmer in the State of Maine of his acquaintance, had noticed at different times for the period of two weeks, combats between a large rat and a weasel in his barn; from which encounters the latter invariably came off second best. One day, being at work near his barn, his attention was attracted to the weasel very busily engaged in digging a hole in a dung heap. He watched the weasel until he had “tunnelled” the heap; and made a hole of considerable size at the entrance and about half way through the heap; the rest of the hole was tapered off, so that; at the place of egress it was of barely sufficient size for the slim little body of the weasel to pass through. When the plotter had finished his hole, he went into the barn and engaged his antagonist rathip. Beaten, of course, again in the encounter, the weasel ran, pursued by the rat, into the hole of the dung-hill, the grain-eater little suspicious of the snare laid for him. Like many unfortunate human beings, the poor rat was “stuck,” and halted sadly between the two extremes; while his cunning little foe emerged from the small end, and whipping round briskly to the larger entrance, “brought up the rear,” and that was soon a dead rat. Here now was a regular plan laid, a shrewd design carried out successfully on the part of the weasel for destroying a foe which was too much for him in a fair fight. It showed forethought and contrivance, and these are very strong symptoms of something more than mere instinct,—reason.—*Valley Farmer.*

THE MICHIGAN DOUBLE PLOW.

We perceive that the *New England Farmer*, in consequence of too brief an explanation on our part, has entirely misunderstood our remarks in relation to the team required for this plow. Our experience in this matter gives precisely the same results as those found by the *New England Farmer*, with the exception, perhaps, that we think decidedly less draught required than for a common plow *cutting the same width and depth.*

A Michigan plow of a size corresponding with a common plow, will cut a furrow one-half deeper, or as three is to two, and consequently must run harder than the latter. For plowing nine or ten inches deep, two yoke of oxen or two pair of common horses are required; for one foot in depth,

the largest size Michigan plow is needed, and must be drawn by three yoke of oxen.

For a given depth, we are satisfied the Michigan plow requires the least draught in consequence of the inverted slice being composed of two distinct portions, which are more easily turned and thrown where they are to lie, than one thick, stiff, and unmanageable sod. At the same time the work is done in a far better manner, especially when the plowing is quite deep, and quite so to do the work well with a single mouldboard.—*Country Gentleman.*

THE OLD WASHERWOMAN.

FROM THE GERMAN CHAMISSO.

Behold her busy with her linen,
You ancient dame, with silver hair,
The briskest of the washerwomen,
Though six-and-seventy years are there;
So she has followed, year by year,
The honest toil at which you find her,
Filling with diligence the sphere
Of useful labor God assigned her.

In her young days, (for she is human.)
She loved, and hoped, and wedded too;
Well has she known the lot of woman,
Seen cares and sorrows not a few.
Her dear sick man she sought to save,
(Three children faithfully she bore him.)
Nor did she bury in the grave
Her faith and hope, when earth closed o'er him.

The precious charge now laid upon her
With cheerful energy she bore;
She trained them up in fear and honor,
Virtue and prudence all her store.
At length, to seek their livelihood,
They took her blessing and departed;
A lone old woman now she stood,
Yet cheerful, hopeful and stout-hearted.

She spared, and scraped, and saved each penny,
And spun by night the flax she bought,
And of fine flax thread yards full many
At last she to the weaver brought.
He wove her linen white as snow;
Her needle and her scissors plying,
A spotless burial dress she so
Prepared against her day of dying.

Her dress—her burial dress—with pleasure
And sacred pride she lays away;
It is her first, and last, her treasure—
The fruit of many a toilsome day.
She puts it on God's Word to hear,
When Sabbath bells sound holy warning,
Then lays it up again, to wear
The night before the eternal morning.

And would that I, when night shall find me,
Might read, in life's last sinking sun,
That I had wrought the work assigned me,
As this good dame her task has done;
That I had learned life's joys to drink
In such full and even measure,
And could upon my grave-clothes think,
At last with such a heart felt pleasure.

AGRICULTURE AND THE "MESSAGE."—We cannot but express our surprise, and sincere regret, that the President, in his recent Message, entirely overlooked the most important interest of the nation—that of Agriculture. This great pursuit underlies and sustains all others, and yet, in this document, deliberately written and pretending to touch

upon all the leading interests of the people, no allusion whatever is made to it. We find it stated, that, "taking the last census as the basis of calculation, there are at this time about six hundred millions dollars worth of live stock in the United States. Their value exceeds that of all the manufacturing establishments in the country, and also, exceeds the capital employed in commerce, both inland and foreign. And yet Agriculture is not acknowledged as having existence in our pursuits.

WHEN SHOULD TIMBER BE CUT.

EDITOR OHIO FARMER:—What is the proper season for cutting timber, to ensure its greatest durability, is a question of considerable importance to the farmer, in a country where it is an object to save timber and avoid unnecessary labor, as it makes a great difference in the profits of a farmer if his fences have to be renewed once in five years, when by cutting his timber in a proper season they would last ten.

The time settled on by tradition appears to be the month of February. Perhaps the reason is, the winter in the most convenient season for doing such work, there being more leisure time then than in summer; and because it has been generally done at that time, it is supposed to be the right one. But if any one will be at the trouble of cutting a tree in the winter or spring, and one in June or July, and making them into rails, and then see which will last longest, he will not need any other argument to convince him that tradition is at fault in this case at least.

Perhaps the case may be different with some kinds of timber; but hickory, ash, basswood, beech, and maple, and some other kinds, cut in the winter, when the bark is tight to the wood, and the sap in the heart of the tree, becomes sap-rotten and worm-eaten before they have time to season, and fall to pieces in a short time; while that which is cut in summer, the bark being loose, and the sap near the surface, can easily be peeled; when it dries immediately, and becomes as hard as a bone, and will no doubt last from one-third to one-half longer than the former. Trees can be cut down in summer, and left with the tops on, to be worked up at leisure with very good advantage.

Bedford, O., 1853.

E. J. YOUNG.

—*Ohio Farmer.*

MR. GREELEY'S ADDRESS.

We have received from the publishers, Messrs. Fowlers & Wells, New York, a neat pamphlet of 33 pages, containing the address of HORACE GREELEY, before the Indiana State Agricultural Society, at its annual fair, Oct. 13, 1853.

The address is entitled, "What the Sister Arts teach as to Farming," and its object is "to set forth some of the principles which underlie the whole fabric of productive art and industry, and to show their application to the farmer's vocation as well as others." This it does in a clear, forcible and consistent manner, showing that farming, like all other productive arts, is not independent of general rules, and that the principles which it is

necessary to observe, in order to be successful in other vocations, are of equal importance to the tiller of the soil. Paying but little attention to the peculiar operations of the farm, the address inculcates the principles of thoroughness, and a perfect mastery of the pursuit of agriculture, partially and theoretically. Mr. Greeley closes his address with an eloquent appeal to the "general experience, and the heart of humanity," in favor of the "calm perennial joys of a humble rural home." We commend the address to all, as filled with good thoughts and valuable suggestions, and we are sure that no one will rise from its perusal without feeling in his heart a new and more earnest longing for the "serene joy which shall irradiate the farmer's vocation, when a fuller and truer education shall have refined and chastened his animal cravings, and when science shall have endowed him with her treasures, redeeming labor from drudgery, while quadrupling its efficiency, and crowning with beauty and plenty our bounteous, beneficent earth."

PIGS AND DOGS.

[Mr. Willis, in one of his recent Idlewild letters, says:]

In my daily rides, of late, I had thought my neighbors' dogs rather more filibusterous than usual, and I was wondering whether it was owing to the frost-sieve which I was allowing kind Dame Nature to spread protectingly over my upper lip, when a friend gave me the key to their excitability. This is the hog-killing season; and it appears, that with the scent of blood in the air, the farmers' dogs became annually furious. They bark at all comers, even those with whom they are well acquainted, and in their assaults upon the passers-by, they quite forget their usual polite distinction between beggars and gentlemen. Pig influence, even after death, is thus hostile to good manners. One cannot "kill his own pork," and have also a well-behaved dog. And I must own that I am pleased with discovering a new reproach to the animal—for it is one of the obstinacies about which I am most reasoned with, by my household advisers, that I cannot consent to keep a pig. "There's an unrighteous amount of swill wasted," as my man eloquently expresses himself—"twenty dollars a year in good sweet pork that you know all about." But, satisfactory as it may be to eat pork with which one has been previously acquainted in the shape of swill, my abhorrence outweighs both the economy and the pleasure. If it were nothing else, the voice of the brute is doom enough for him. ("Oft in the still night," etc.) And as one must remember daily, every creature of which one is bound, as the master of a home, to be mercifully mindful, I will have a home without a pig—if my own taste and my dog's better manners are arguments that continue to prevail.

☞ Monroe D. Randall, district school teacher of Belshertown, has been ordered to pay \$10 and costs—amounting to about \$30, for inflicting excessive punishment on a female pupil. He appealed.

For the New England Farmer.

THE MONTHLY FARMER FOR DECEMBER.

This number completes the volume and the year. This is as it should be. A periodical should no more end in April or October, than Thanksgiving or Christmas come in dogdays. These long evenings, too, are just the times for holding family councils on the subject of taking the *Farmer* another year, for, as Young says, "Night strikes thought home;" and farmers are obliged to think over their expenses pretty carefully. But until Agricultural Colleges, Lecturers, or something else, shall take the place of agricultural papers, we do not see how we are to get along without the *Farmer*. But this is wandering from our text. Let us glance at the contents of the number for December.

A MODEL FARM.

Although Congresses and Legislatures may neglect to establish in our country any thing like the "Model Farms" of Europe, that so take the fancy of some agricultural writers and speakers, still we are not left entirely without models. Scattered all over the land, unpretending as worth, and retiring as modesty, are yet to be found, thank heaven, thousands of model farms and model farmers, of the true American stamp. "How to secure a home and be Independent" places one of these models before us. When young men cease to imitate, and older ones to admire, such examples as the history of Mr. Stow affords, and look to the legislature for their "models," the "decline and fall" of our empire will begin, and very much where that of the Roman did.

BIRDS.

No. 7 of Mr. FOWLER's series of articles on the "Birds of New England," which treats of the Swallow tribe.

CALIFORNIA.

The land of gold promises to become a land of farmers. Messrs. Byrant & Co., on page 573, speak of the agricultural capabilities of the country, while "California Matters" give some of the premiums offered there on agricultural productions; and "Gold against Hay" is a sensible article,—but what's the use of talking! Though a California outfit may cost more than a farm in Iowa, and every ounce of gold dust twice its market value, and the lives of half the miners, yet thousands must and will "see the folly of it for themselves."

COWS.

A likeness and statement of the cow that took the first premium at the Middlesex County show.

FAIRS.

Brief notice of agricultural fairs in Cheshire County, N. H.; full account of the National Horse Exhibition, where the receipts were \$10,000; of the Augusta, Georgia, Show; of the Hampshire County Exhibition; with names of officers of the Rockingham, and of the Hillsborough, N. H. Societies for 1854.

FRUIT.

If "J. T. W." who makes inquiries about grafting pears on the Mountain Ash, has not the monthly *Farmer* for May, I should advise him to obtain it, and read an article by Mr. GOODRICH, on page 224, and a few lines on page 204, before he

lay out much labor on the Mountain Ash, unless he intends to sell his pears "two years from the bud." Other valuable articles on "Gathering and Preserving Pears;" caution against selecting varieties for cultivation from specimens exhibited at "Exhibitions of Fruit;" "Remarks on Transplanting Trees;" and notice of a new seedling "Frost-Proof Grape."

GARDEN.

The editor gives us some Autumnal reflections in "The Garden," with hints on work there for the season; "A short Garden Chat" on peaches, peas, and beans; and "The product of an acre and a quarter," in Canada.

IMPLEMENTS.

An editorial on "Agricultural Implements;" a cut and description of a "One-horse Farm Tilt-cart;" with an article on "Agricultural Machinery," which says, "though thousands of very ingenious men have labored for years to improve the plow, still the best now in use consume five-sixths of the moving force to overcome friction and cohesion."

MANURES.

In a report of the proceedings of a late meeting of the Board of Agriculture I am glad to notice the appointment of a committee on the waste of fertilizing substances in cities, and from the names of the committee, think we may believe the matter will not end in the "Resolve" by which they were appointed. We find also a "Table of Manures," giving the composition, mode of application, weight, &c., of several special manures; remarks on "Bones and Sulphuric Acid;" "A New Manure;" and the "Meadow Mud" controversy, continued; in which the editor says "many things are recommended to the farmer that are altogether unattainable by the great mass of cultivators; and many courses or plans proposed that can only be adopted by a few." How true; and yet this idea has subjected his remarks to the criticisms of the *Tribune* and of "Glen." No wonder there is prejudice against book-farming! I was brought up among farmers that had hard work to get salt for their pork, where lime enough to plaster the "square room" could not be had by all, and where an oyster shell would have been placed in the cabinet of curiosities on the mantel piece.

PIGS AND TURNIPS.

Thoughts, suggestions and facts on feeding pigs on turnips. Though not much of a turnipite myself I can wish all manner of success for Mr. FRENCH in his experiments. One country raises turnips with a profit; another sugar beets; and a third, Indian corn—but this does not prove that either country can succeed with all these articles. When Cobbett went back to England he attempted to get up a corn fever among the farmers there, but with as little success among practical men, as the turnip advocates have thus far met with in the United States.

REMEDIES,

For "Borers," for "Warts on Cows;" for "Lice on Cows;" and for "Burns."

SCIENCE.

When government shall take the business of agriculture into its hands, as it has done that of education, and be able to place the graduates of "Farm Schools" into lucrative places, as it does

those of Normal schools, then will Mr. GOLDSBURY's argument be to the point, and the "Agricultural Lectures proposed by H. S." can be delivered by those "having authority." "Science as a co-worker" with the farmer is recommended by Mr. PERRY. He says, "It cannot be possible that agriculture alone, of all the arts, must stand aloof from the aid offered by science. All other industrial occupations owe their elevation and importance to it." Now is it not a fact that agriculture supports two periodicals devoted to its interests, where the other "industrial occupations" support one—pays for two volumes on the "application of science," where they pay for one! Shoemakers and masons, wheelwrights and tailors, may be far ahead of farmers, in science, but I have no proof of it.

TITLE PAGE AND INDEX.

The printer gives us a neat title-page, and the editors a copious index of subjects, illustrations, and correspondents for the volume. From which it appears that some *two hundred and forty* different individuals have contributed more or less of their thoughts or knowledge, during the year; that some 47 cuts or pictures have illustrated its pages, and that the mere names of subjects fill up nine columns. It may be that there are some readers who will throw aside this index with the feelings of the lady who remarked of Dr. Johnson's Dictionary, "though the language is magnificent, I don't think much of the story," yet the great majority will agree with Daniel Webster in his estimate of the value of an index, when he said "I never look at a book that has none."

SHEEP.

Nine particular, and a good many general reasons for preferring "Merino sheep for mutton" and other purposes.

WHEAT.

Several encouraging instances of success in raising wheat in New England, the past season, are mentioned in this number.

A READER.

Winchester, Dec., 1853.

THE FINEST OX IN THE WORLD.

An ox, acknowledged by all who have seen him to be the most extraordinary one they have ever heard of, is about to be forwarded to the Smithfield Cattle Show, from Sir H. Verney's, of Claydon House. He was bred and fed by the Hon. Baronet, and is a pure short-horn. He is rather over five years old, and is supposed to be much heavier than the famous Durham ox, about which so much noise was made at the beginning of the present century, or than the American ox, which some few years since attracted so much notice. He stands nearly 18 hands high, and measures 6 ft. 6 in. from hip to shoulder, 3 ft. across the hips, 9 ft. 11 in. in girth behind the shoulder, and 12 ft. in length from the tip of the nose to the rump, while his depth from chin to brisket exceeds 4 ft. 6 in. He is exceedingly well made up, particularly along the whole length of his back; and notwithstanding his great size, presents none of those monstrous fatty excrescences which so generally disfigured the highly-fed beasts, and were so generally condemned a few years since. He has been fed upon grass, cake and corn; and is supposed by various judges, who have courteously been permitted by Mr. Fraser, Sir H. Verney's steward, to

visit him to weigh upwards of 300 stone. Notwithstanding his great weight, he is exceedingly active, is very tractable, and is a capital feeder; indeed, Mr. Fraser does not hesitate to express his belief that the animal could stand feeding for another year. In color he is a light roan, with white predominating, and is altogether a very handsome, quiet beast, with a kind head and docile eye.—*Bucks (Eng.) Chron.*

Advertising Department.

University of Albany.

DEPARTMENT OF CHEMISTRY.

E. B. CARR, M. D., Professor of Chemistry and its applications to Agriculture and the Useful Arts.
F. B. DAKIN, Instructor in Analytical Chemistry.

This department of the University, having been permanently established, a spacious Laboratory will be opened for the reception of Students, on Tuesday, the 10th day of January next. There will be a Course of Instruction in Practical and Analytical Chemistry, and a Course of Lectures on the applications of Chemistry to Agriculture and the Manufacturing Arts, continuing during a term of three months. The Laboratory will be open from 9 A. M. to 4 P. M.

The Lectures will be delivered in the evening, and will be free of charge.

For Laboratory Instruction, \$20 per term, or \$10 per month, for a shorter period. Students will be charged with breakage and the Chemicals they consume. Students will also have access to the State Agricultural and Geological collections.

Analysis of Soils, Ores, Mineral Waters, &c., made on reasonable terms.

Address Prof. E. B. CARR, at Albany, or either of the following gentlemen: LUTHER TUCKER, office Albany Cultivator; Hon. E. P. JOHNSON, State Agricultural Rooms; Dr. J. H. ARMSBY, 609 Broadway.

Dec. 17, 1853.

4w.

U. S. and Foreign Patent Agency,

No. 39 STATE STREET, BOSTON.

SAMUEL COOPER,

LATE Chief Examiner in the U. S. Patent Office, procures Patents in this and Foreign Countries.

REFERENCES.

The undersigned, Principal and Assistant Examiners in the United States Patent Office, have for several years been well acquainted with Mr. Samuel Cooper, lately a Principal Examiner in this Office, and take pleasure in stating that he is a gentleman of the highest moral character, of unquestioned knowledge in the business and practice of the Office, and that his scientific attainments are such as eminently fit him for the business in which he is about to engage.

HENRY B. RENWICK,	} Principal Examiners.
L. D. GALE,	
J. H. LANE,	
T. R. FRALE,	} Assistant Examiners.
THOS. H. EVERETT,	
F. SOUTHGATE SMITH,	
WM. CHAUNCEY LANGDON,	

From long acquaintance and intimate official relations with Mr. Cooper, I fully and heartily concur in the foregoing recommendation made by my late colleagues.

WM. P. N. FITZGERALD,

Dec. 31.

if

Late Principal Examiner of Patents.

Super-Phosphate of Lime,

IN bags and barrels, made by C. B. DEBURG, a warranted pure and genuine article, with full directions for use. For sale by GEO. DEVENPORT, 5 Commercial, corner of Chatham St., Boston, agent for the manufacturer.

Also, for sale, Ground Bone, Bone Dust, Burnt Guano, and Grass Seeds of reliable quality.

March 26, 1853.

For Sale.

The Hungarian Bull and Cow, belonging to the estate of the late Hon. Daniel Webster; also a full blooded Alderney Bull. To be seen on the premises.

Jan. 7, 1854.

if



Ground Bone.

THE attention of the Scientific Agriculturists and others, is invited to a new article of ground bone. Bone manure has long been known to be the most fertilizing article in use, not excepting even guano, but there has always existed a difficulty in pulverizing it at a cheap rate in manure, that it will speedily and powerfully operate on the soil. That difficulty has at length been overcome, and the article is now offered in its pure and most efficient state, ground to any desired fineness, and at the same time retaining all its ammonical and gelatinous matter, constituting the fertilizing qualities, which causes this manure to be so superior to all others; and another consideration in its favor is, that it can be furnished to order fresh ground, retaining all its virtue, at a very short notice, and at a reasonable rate. All orders addressed to the subscriber will meet with prompt attention, and all necessary information furnished by

JOSEPH MORRILL,
No. 6 South Market Street

Jan. 7, 1854.

Smosy

NEW BOOK BY REV. JACOB ABBOTT.

"Rollo on the Atlantic,"

BEAUTIFULLY ILLUSTRATED WITH ORIGINAL DESIGNS.
BY JACOB ABBOTT.

"ROLLO ON THE ATLANTIC"

IS the first book of a series to be published under the general title of ROLLO'S TOUR IN EUROPE.

Extract from the Preface—

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LUTHER GILBERT, Newton Lower Falls.

Dec. 24, 1853.

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A FEW Strong Swarms of Bees, in patent hives, with glass backs and full of honey, all in fine condition. Price \$10 each. For sale by

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Dec. 24, 1853.

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PIPER SHIP SHAWMUT, and for sale wholesale and retail
500 doz. Cattle Ties.
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1000 pairs Trace and Lead Chains.

PARKER & WHITE,
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Dec. 10, 1853.

6w.

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

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Oyster Shell Lime.

THE subscriber has been induced, at the request of several of his friends in the farming interest, to enter into the manufacture of SHELL LIME, for farming purposes, and is now prepared to deliver at any of the railroads in Boston or Charlestown, the article in lots of from 10 to 100 barrels, at the low price of 35 cts. per barrel, or if taken at the kiln in Medford Street, Charlestown, at 30 cents. The money must be sent with the order.

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The shell lime made into mortar, with four barrels of sand to each barrel of lime, will make a cement of better quality than the best of Thomaston lime, for cellar walls or stone work of any kind.

It also contains double the quantity of Phosphate of lime than is contained in stone lime, consequently for farming purposes is much the cheapest.

March 24, 1853.

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A superior article for top dressing Grass Lands, put up in barrels and delivered at the railroads in the vicinity. Proportion about three hundred barrels to the acre.

March 21, 1853.

JAS. GOULD.

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BULRUSH.

The subscriber now offers the services of his Suffolk Boar, BULRUSH, (to those who wish to improve their Stock.) Bulrush was imported last spring, and is now about one year old. He is remarkably vigorous, and a superior animal. He will be kept for the present, at my stable, near the Depot, Concord, Mass.

JOHN RAYNOLDS.

Dec. 17, 1853.

tl.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

Terms, \$1.00 per annum in advance.

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EAGLE DOUBLE PLOWS.

THE superior merits of these Plows consist in

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April 30, 1853.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, FEBRUARY, 1854.

NO. 2.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FREDK HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR FEBRUARY.



THE fields are now locked in frost, and the earth is reposing and gathering energies for another season. Suppose we close the shutters, stir up the fire, and in this warm precinct, map out the heart, as it were, and see what are its objects, motives and desires for the future! But particularly in reference to rural life.

If we were allowed to invade the dominions of the clergyman, select a text and draw deductions from it, we should, of all others, select the words—"Magnify thine office." Failing to observe the injunctions of this short and simple precept, thousands are ever afloat upon the sea of life, as the tempest-tossed and shattered barque upon the ocean, with rudder gone and reckoning lost. Without a love for the occupation in which we are engaged, combined with a steady aim and effort, few enterprises will be successful, and least of all, perhaps, that of the farmer. That his motives and desires are the happiness of himself and those dependent upon him, together with that of the race, we have studied his character and associated with him too long to entertain a doubt. That self-aggrandizement, an inordinate desire for distinction, and a reckless expenditure of means to attain them, cannot be justly charged to the farmer, must be clear to all. Yet with these most laudable intentions, he is in too many instances discontented with his condition in being obliged to cultivate the earth for his support.

In tracing the lines upon this map of the heart which lies so fairly before us in the mellow light, we find no evidence of culpable ambition, no deep

laid schemes for gaining political power, no propensity for litigation with a neighbor, or low cunning to defraud him of his honest due; but on the contrary, most of its various fields are fair, glowing with benevolence and love, and speaking "Peace on earth, and good will to men." Still, he is discontented. That which we speak is no idle fancy of ours. Hundreds of visits to their homes, and free conversations with the inmates of the farmer's household, have indelibly impressed the unwelcome truth upon our heart, that in numberless cases he is dissatisfied with his occupation. If the assertion needs sustaining, proof, undeniable, may be found in all the cities; they are glutted with a surplus population, deluded by their tinsel and glare, too lazy to work, too proud to beg, but, alas, oftentimes not too moral to steal. These "ragged regiments," scattered in the country and "subduing the earth," might stand among the pillars of the nation instead of becoming a burden to it, and rotting in idleness and luxury and subsequent poverty and disease, a plague-spot on the body politic.

As the good physician seeks to find the cause of the disease he is called to cure by ascertaining the particular organ affected, so must we seek here, the cause of such wide-spread dissatisfaction and discontent, and in order to do this, must again recur to the map still on the table before us. Here we find a field possessing all the natural qualifications of soil, variety, aspect, &c., and capable of readily receiving the genial suns and fertilizing rains, when properly cultivated,—and this is its name—"The Intellectual Field." But what an appearance does it present! The fences of stone, or rails, or brush, straggle away into the pastures and wood-lot; stumps and rocks project upon its surface while burdocks and brambles and countless baneful weeds scatter themselves in wild luxuriance through all its length. Here gush up chilling spring waters, which flowing over the surface, encourage the growth of rank plants unfitted

for the use of man or beast, and, like evil passions, in the uncultivated heart, check every plant of kindlier growth. And, strange to tell, this neglected field is the most prominent one on the map; it may be seen from the windows of the house, from every other portion of the farm, and overlooks the highways leading to the towns of Happy Dale and Sweet Content. And this is the cause of the dissatisfaction of which we speak—a neglect to cultivate “*The Intellectual Field*!” From year to year it lies a dreary waste—the gentle dews and refreshing rains fall upon its hard, unyielding surface in vain; the sun warms it but to be reflected back with all its vivifying power, and the sweet breath of spring drops no fatness there.

Such is the manner in which the farmer treats the *intellectual field*, while the others are cultivated with unceasing care; and until justice is done to this, the most important of all, farming will be but a *tread-mill* kind of occupation, and will offer few inducements to the young and enterprising to enter its courts.

In this branch of culture, the farmer possesses great advantages—he can work in this field in the winter; his garners are full, and close and constant application is not necessary. We cannot say now how this cultivation should be accomplished; he must *think* it out himself. February’s snows, and winds and storms, cannot suppress the emotions and desires of an earnest heart, but will offer opportunity for it to explore new and interesting fields, so that it shall increase in wisdom and usefulness through each revolving year. But *this* may be said—We must not be satisfied merely with what we can *see*. There is an “inner man” to be cared for. Because Winter scenes assume the sway, they should not cut off the delightful anticipations of Spring, the glory of the fields in Autumn, the return of flowers, “busily working at their gay toilets, and weaving their fantastic robes, and shaping their trim forms, and distilling their rich essences.” What a race should we be, if we knew and cared to know of nothing, but what we can see and prove!

“Whose mind is but the mind of his own eyes,
He is a slave—the meanest you can meet.”

But there are some visible things to be done, and we will attend to them now—the first of which is to

LOOK AT YOUR YOUNG TREES.—The deep snows, followed by rain storms, will prove destructive to young trees unless attention is paid to them. Many young pear trees, particularly, were covered by drifts, and if they are allowed to remain and freeze about the branches, they will be dragged down by the settling snow and rain, and broken. When frosty, these branches are tender and break easily. The young apple trees, quinces, and valued shrubs, should also be looked after.

THE FARM.—Profit, and great convenience, will

be found by making a sketch of the outline of the farm, and then of its existing divisions, giving the buildings their proper position.

SCIONS.—Cut scions now and place them in a cool damp cellar, or cover with sand, that they may be ready for use.

SEEDS.—Prepare seed corn, potatoes, peas, beans and all other seeds that you intend to plant, and make it an invariable rule to *select the best* of whatever kind you use. Great improvement may be made in the *quality* of crops by the strict observance of this rule, and probably of *quantity*, too.

THE STOCK.—Of all kinds—will frequently require the *master’s eye*; it will not answer to trust too much to hired hands. There will be no profit in careless and indifferent keeping. Cattle like different kinds of food the same day. Working oxen, especially, but all neat cattle, will thrive better for being supplied with good beds of litter, as they will lie warmer and easier, and keep cleaner.

This is, in our opinion, a part of the **FARM WORK FOR FEBRUARY**; if you do not like the sketch, kind reader, write one out yourself, and lay it before us.

For the New England Farmer.

THE GOVERNOR AND THE FARMER.

MR. EDITOR:—I am pleased to observe in your paper of this date, a notice of what his Excellency said in his late message, of three full columns, in relation to the interests of the farmer, and the advancement thereof. As more than one-half the population of the State are directly engaged in the cultivation of the soil, and the remainder are dependent on its products for subsistence, there seems to be a peculiar propriety in the Executives of the State, and of the Nation, giving their favor and approbation to the employment of the farmer. We hope his Excellency, who is *ex-officio*, of the *Board of Agriculture*, will continue his favor to the cause of the farmer, and do all he has promised, and even more.

Jan. 21, 1854.

For the New England Farmer.

BUTTER PRODUCTS IN BERKSHIRE.

[IN ONE WEEK.]

Cow No. 1.	June.....	346 lbs. milk.....	16 lbs. 11 oz. butter.
	September. 33116 “ 5 “	
Cow No. 2.	June.....	440 “17 “ 14 “
	September. 41016 “ 1 “	
Cow No. 3.	June.....	337 “15 “ 8 “
	September. 29815 “ 1 “	
Cow No. 4.	June.....	319 “13 “ 8 “
	September. 24813 “ 4 “	
Cow No. 5.	June.....	319 “12 “ 4 “
	September. 23011 “ 4 “	

3328 lbs. milk. 150 lbs. of butter.

Being one pound of butter to 22 pounds of milk—not quite up to those cows which are said to produce a pound of butter for “each and every gallon of milk.” Berkshire farmers must look out, or Middlesex speculators in stock will out-run them.

Jan. 11, 1854.

For the New England Farmer.

CONCORD FARMERS' CLUB.

Last evening, (Jan. 5th) the Farmers' Club had a public meeting, and although the walking was very bad, there was a very good attendance of gentlemen and ladies. A very interesting lecture was delivered by SIMON BROWN, Esq. He began by speaking of the antiquity and honorable character of Agriculture, and its importance as the basis of national wealth and prosperity; prosperity founded on commerce may be interrupted by war, or destroyed by competition; but that which is founded on Agriculture is of a more permanent character. He then spoke of the means by which Agriculture has been improved, and is to be still further improved; and of the special importance of Chemistry and Vegetable Physiology, and urged their study upon the youth of the community. He spoke of the many facilities we enjoy in the shape of improved methods of cultivation, and improved agricultural implements, when compared with our fathers; and urged the importance of farmers availing themselves of all these facilities. He spoke of the importance of association for mutual improvement in agricultural knowledge, and the influence they were exerting and of the value of the agricultural literature which is growing out of the wants of the times, and mentioned the names of several books which every farmer should have as a part of his agricultural stock.

The lecturer then addressed the wives and daughters of the farmers, and pointed out the importance of their being truly helps meet for him. He exhorted them to make themselves acquainted with all the processes of the farm; with the nature of different soils, and the crops suited to each, and with the best times and methods of cultivating the various crops on the farm. He told very finely, the story of Mr. Colman's visit to an English landholder, whose accomplished lady claimed his company for the day, took him over the broad fields which her husband was cultivating, and explained to him the various processes of cultivation which were going on, and the reasons upon which each was founded; showed him the stock and the dairy, answered all his inquiries respecting the breeds of cattle, and swine and sheep—and the different methods pursued with each. And after having thus walked with him some eight or ten miles over their extensive domain, and showed herself thoroughly acquainted with both the science and the practice of agriculture, she presided at the dinner-table with all the grace and elegance of a lady who had spent her life in the drawing-room. So our farmers' wives should be prepared to direct the affairs of the farm in the absence of their husbands. They should take an interest in the employments of their husbands, and cheer them with their smiles and co-operation; and here he quoted most appropriately—

"To-morrow, ere fresh morning streak the east,
With first approach of light, we must be risen,
And at our pleasant labor, to reform
You flow'ry arbors, yonder meadows green."

And Eve's beautiful reply,

"With thee conversing, I forget all time,
All seasons and their changes, all please alike."

The lecturer referred to Mrs. Loudon's book on gardening, and the circumstances under which it was written, and to the scientific writings of other ladies, and to others still, who have aided and encouraged their husbands in the various pursuits in which they have been engaged. The moral tone of the address was of a high order, and the whole performance was highly creditable to its author.

After the close of the address, an interesting and animated discussion took place upon the following subject; "The Home of the Farmer—How can it be rendered in the highest degree pleasant and attractive?"

Mr. Wm. D. Brown read a finely written and highly poetical essay of about ten minutes' length, in which he described the situation and construction of farm buildings, their convenient arrangement, and the neatness and order in which they should be kept, as important elements in the pleasantness and attractiveness of the farmer's home, and then referred with great naivete to attractions which might exist within the house, but which he, as a bachelor, could be supposed to know but little about.

He was followed by Dr. Reynolds, who inquired to whom the farmer's home was to be made attractive? To people of the beau monde? To gentlemen in gloves? To fashionable ladies? Or was it to be rendered attractive to the farmer's sons and daughters, so that they might be contented to remain upon their paternal acres? He supposed the latter the most important class to be attracted. It was a general complaint that our young men were all going to the cities, to California, to Australia. How can these young men be induced to remain at home, and devote their energies to the improvement of agriculture? He thought it must be by giving it a more intellectual character, and thus elevating it to a level with the professions. To this end they must be educated for the business of farming, as other young men are educated for other callings. They should be taught Agricultural Chemistry, Vegetable Chemistry and Physiology, Geology and Botany, and all that pertains to the science and practice of agriculture. Thus the craving of the youthful mind for knowledge will be satisfied. His labors in the field will be guided by fixed principles, and be attended with more certain results.

When agricultural education and scientific cultivation shall become general, then the business, the calling, the home of the farmer will become

in the highest degree attractive to thinking, enterprising young men. Pleasant situations, ornamental trees, flowers, avenues, neatness and order are all desirable and all contribute much to the pleasant associations connected with the farmer's home, but these alone, without something that shall occupy and satisfy the mind, will not be sufficiently attractive to keep our young men and young women in the business of agriculture. Dr. R. was followed by J. B. Farmer, Esq., who made some remarks upon the manner in which the wife and daughter discharge their duties, as an important circumstance connected with the farmer's happiness. The cleanliness and order of the house and the comforts of the farmer depend essentially upon the wife and daughters, and if they would keep him at home and make home pleasant to him, they must attend to those things.

Other gentlemen not belonging to the club were then invited to take part in the discussion. Some interesting remarks were made by Rev. Mr. Frost, especially with reference to bringing mind to bear upon the cultivation of the soil. Where there was the best cultivation there was the most mind engaged in it. Where he saw about the premises beautiful flowers, finely cultivated gardens, neat avenues, delicious fruit, he was sure to find cultivated mind. Rev. Mr. Angier followed in some remarks upon the importance of habits of personal neatness in the farmer as having much to do with the comfort of home. He should carefully clean his boots, and leave in some back room the frock in which he took care of his cattle and cleaned his horses, and not disgust his wife and daughters by bringing the cow-yard into the sitting room. The wife and daughters should show that they sympathize with the father in his labors, and do what they can to make him comfortable after his day of toil. They should meet him with a pleasant smile, and be ready to attend to his wants. Elizabeth should get his slippers, and Susan take away his boots, and all should be emulous to make him feel that his comfort is an important consideration with them.

The interest of the discussion was kept up till nearly ten o'clock.

The meetings of the Club have been held weekly, at the houses of the members, since the latter part of October. At our next meeting the subject of garden fruits is to occupy our attention.

I will endeavor to keep you informed of passing events in our good old town, especially when any thing occurs which I think of sufficient general importance to merit a place in your paper,

Yours, truly, H. S.

WATERPROOF FOR LEATHER.—Linseed oil, one pint; yellow wax and white turpentine, each two ounces; Burgundy pitch, one ounce. Mix and color with lamp black.

For the New England Farmer.

MONTHLY FARMER FOR JANUARY.

As almost every body takes some sort of reckoning of progress and prospects, on the commencement of a new year, it may be well for us to ask, here, how stands the cause of agricultural improvement? We are prompted to do so especially by the fact that the number of the *Farmer* before us, which commences the new year, and the number which closed the old year, point out several signs of the times, which, by one and another, seem to be regarded as unfavorable to any very speedy advance. Of these, however, we shall be able to notice only one—the fact that agriculture does not offer as high a premium for talent as do other professions.

I shall not attempt to controvert this fact; indeed, I must go further, and admit that I cannot do it. None but a dreamer will ask for proof of the assertion that individual New England farmers cannot afford to pay those in their employment the \$1800 a year that city school-masters command, or the \$3 to \$7 per day that factory, bank and railroad corporations, ship owners and extensive merchants, pay their competent superintendents. In this state of things, suppose a dozen or two of young men were to graduate yearly from an agricultural college in each State of the Union, masters of one-half the sciences proposed to be taught in them,—would they not say, "Unless farmers will pay as high a premium for talent as other people will, we shall seek our reward in other pursuits?" And would they not as surely and justly do so, as the farmer will sell his produce to the highest bidder? For ought I can see, then, looking in this direction, our "day of darkness" tends only to a darker, drearier night. The wheels of our car of progress are blocked, if not reversed. And a "Happy New Year" can mean no more, agriculturally, than "may your shadow never be less,"—seeing it can never be larger.

Now I prefer a more hopeful view of the subject. What though institutions and systems of education which answer well in old countries, where the population is dense, where one man owns land enough for a county, and has tenants enough to people whole villages, should fail here, where population is sparse, where each individual is as good as a lord, and where every man—

— "that by the Plow would thrive,
Himself must either hold or drive,"

or do both, any way he can fix it?

In the history of the colonization of our country, we find that the codes of laws which were drawn up in the closets of English statesmen and philosophers, often proved utterly impracticable in the wilderness here, and were superseded by such simple regulations as neighbors chose to adopt. Bancroft intimates (vol. ii., p. 145) that Locke's elaborate constitution for Carolina failed because "he believed it possible to construct the future according to the forms of the past."

In the revolutionary struggle also we find that "the wisdom of this world" was confounded. Duane (Military Library, Art. Origin of Rifle Corps) says, that the means and mode of defence which the Americans adopted in the early contests not only inspired the British army during the remainder of the war with dread and apprehension, but actually effected an important change in

European tactics. Had the yeomanry of that day waited for the drilling of a scientific military school, instead of hastening just as they were,

"With lopp'd down hats and rusty guns,"

to the contest, the world might have lost a lesson on the efficiency of light troops, and we our national independence.

Our history is full of similar instances, but these are sufficient to indicate the true principle of national prosperity,—*The use of means adapted to, and growing out of, our peculiar circumstances.*

And I believe that agricultural progress in this country must be made on the same principle. Instead of persisting in our reliance upon the institutions of the past, we should open our eyes to the indications of that Providence who rules the present, and it would be well if we could do it with the conviction that "it is not in man that walketh to direct his steps." For a long time we have been attempting to "direct our steps" towards agricultural schools and model farms. We have commenced the work at various times, and in various parts of the country, but have met with utter failure in every instance.

During the same time an "Institution" has sprung up spontaneously in our land, with a sweep as wide as the wants of our people—a sort of clairvoyant institution, whose "students" may saw shingles in Maine, dig gold in California, cut ice in Massachusetts, or raise wheat in Minnesota and cotton in Georgia, without breaking up the class, or losing a single lesson of the term, or a lecture by any of its professors! This institution is the agricultural Press. A new power to be sure, and still in its infancy. But while our incipient agricultural colleges have furnished no signs of promise, the infant agricultural press has multiplied its books and papers till the secluded mountaineer, and the remote "squatter" are beginning to read about farming, and thus, perhaps unconsciously, are imbibing potions—homoeopathic though they may be—of the milk of science, that will gradually form an appetite, and a digestion for stronger food. This must be supplied, and to do it, the best talent of the land will eventually be secured to the cause of agriculture, and that through the Press. Suppose that the interest of one hundred thousand dollars, which would scarcely suffice to keep a half-starved college in existence, was to be expended yearly in rewarding the service of such talented, scientific and experienced men, as might be induced to devote a portion of their time and energies to enrich the ample columns of the *New England Farmer*, who will undertake to calculate the results of the investment.

But here I leave the future, to take care of itself, while I attempt a brief synopsis of the first number of the *Monthly Farmer* for 1854.

BIRDS.

No. 8 of Mr. Fowler's articles on the Birds of New England, in which many people will be sorry to find the Robin gets a rather bad name.

CATTLE.

Articles on "Short Horn, or Durham Heifers," with a plate, on "The Wintering of Stock," and on "Dry Food."

"DRAINING."

Comments and directions by one who has evidently been schooled to the business in the old

country. But it will be a long time before the farms of New England will be drained, as he recommends, "27 inches deep and 18 feet apart."

FIRE WOOD.

While ready to endorse the caution of the Editor against smoking and sizzling domestic felicity out of existence by the use of "Green Wood," my experience does not confirm all that chemists say of the relative value of green and dry wood. Prof. J. J. Mapes says, (Nov. *Farmer*, 1851) "Three cords of green or partially dried wood will not warm a room for as great a length of time as one cord well dried." Now, although a "most unscientific reader," and knowing nothing of the "rationale" of the matter except what I have learned by chopping wood and tending fires from my youth up, I must be allowed to shake my head when told that one cord of anybody's dry wood will warm a room as long as three cords of green or "partially dried" white oak or hickory, however learned may the man profess to be who says it. In "The table of the comparative value of different kinds of Firewood," white pine is put down as worth \$3.11, and pitch pine, \$3.18; or seven cents difference per cord. In this section white pine sells for four-fifths only of the price that pitch pine readily commands.

FAIRS.

An account of the "Maryland Cattle Show and Fair," held in Baltimore, last November. Among the fine display of domestic animals, the writer regretted to find a specimen of that miserable breed—the striped pig, that "run out" so many farmers in New England, years ago; but rejoices that President Pierce, who was present, refused to take a look at the "critter." "Agriculture in Virginia" heads an account of the State Fair, at which \$60,000 were subscribed to advance the cause of agriculture in the Old Dominion.

FRUIT.

The unusual scarcity and high price of winter apples, this year, give more than usual interest to articles upon this subject, and may perhaps influence some to resolve, at least, to plant trees of their own. That one man, who cultivates only eight acres of land, should sell \$850.00 worth of fruit, this barren year, (page 16) is rather exciting to those who cultivate much more land with far less to sell. If any where near market, you may plant trees, and let the croakers croak,—glut the market first, if you may, and then your cattle, if you can—poor creatures, eating dry hay all winter, how they would relish a half peck of apples occasionally! But what says the *Farmer*? Don't your mouth water as you look at that "Winter Nellis Pear!" What do you think of those "Observations in a Garden," as the writer discourses of Plum Trees, Wash for Trees, and the Dix Pear? Of "S. F.'s "Low-limbed vs. Tall Trees?" of those six reasons for preferring "Autumn Transplanting of Fruit Trees?" of those remarks on salting Plum Trees, Potash Wash, and Trimming Trees, to be found by looking in the index for "Upland Cranberry?"

GRAPES.

An illustrated chapter on "Grape Vines—Bearing and Pruning."

"GREAT CROPS."

A statement of several Premium Crops in New

Hampshire, with editorial comments on "one hundred and eleven bushels and fourteen quarts of corn on one acre!" Although the editor has been among the great-crop folks a good deal, he says such a field "certainly would be a sight such as we have never yet been permitted to see."

MANURES.

To the farmers of New England this is the great subject for study and discussion; for, of what use are mowing machines and horse-rakes where grass don't grow, of double plows and bright hoes in a barren field! Our old farms must be enriched or our sons will go to the west, to the shop, and store. We want, then, all the aid that science can afford, all the teachings that experience in all parts of the world has suggested. Hence the value of an agricultural paper depends in a good degree upon the attention given to the subject of manures. On this principle the first number of the *Monthly Farmer* for 1854 is unusually rich and instructive. On turning over its pages we have marked eight articles that treat of this subject. First "Waste of Urine," in connection with "Chinese Manures," suggests the means of a great saving in the management of common materials. While "Preparation and Application of Manure," "Something New—Guano," and "Observations in a Garden," give some hits on the vest-pocket nostrums of the day, they have many suggestions of general application. The great object of the writer of "Manures—Bara Cellars," seems to be to prove that "the guidance of science is preferable to that of unscientific experience." I believe they are seldom antagonistic, and ought to be harmonized, not put in opposition. The learned professor and the ignorant Chinese, for instance, arrive at the same conclusion as to the value of urine. But at this rate of writing I shall have to pass over the articles on "Humus," on manufacturing "Superphosphate of Lime," and the inquiry about "Oyster-shell Lime," without comments, although I must say it is a little strange that an article which has been so highly recommended and so long advertised as oyster-shell lime has been, should still be so little known as a manure.

PORK.

"Fattening Swine" is an article full of practical suggestions of economical ways and means of making Pork, and on pages 39 and 40 are some valuable experiments showing how much pork a bushel of corn will make.

PLOWS AND PLOWING.

Four articles on the "Double Plow;" one by Mr. Sheldon, who finds that two yoke of oxen will plow as easily with a single plow as three yoke can with the double plow; the other three articles contend that the double plow is worked as easily as the single, at a given depth. With a dissertation on "Fall Plowing, &c." by L. Durand.

SCIENTIFIC.

"History of Vegetation, No. 2," by "R. H. H." Nature of "Coal Ashes," and the constituents of "Manures" from Johnston, &c.

SHEEP.

"Practical Hints in Sheep Husbandry" is an article appropriate to its caption, and "Polled Sheep" gives some half-dozen objections to horns on sheep.

TEMPERANCE.

The illuminated "Calendar for January" is a temperance lecture that must stir the feelings of those of us who are unfortunately old enough to have our boyish memories printed all over with painful reminiscences of "the times when it was fashionable to drink intoxicating liquors." The editor has drawn a gloomy picture of those days; but that is a fortunate person whose experience will allow him to doubt its truthfulness; whose boyish ears have never listened to the vulgar story and the obscene jest that were repeated evening after evening in those "schools of vice"—the village stores; and who knows nothing of the privations endured by the family to meet the grog bill, of how the best cow and the best sheep, were selected yearly by the merchant, and driven away to pay for more rum, and of how whole districts might be found in which not a single newspaper was taken, and not one house in four could produce a dictionary. Is the blighting curse of intemperance returning?

TREES.

"Trees on Farms," after admitting that scattering trees in open fields in England are "going," advises their continuance particularly in the pastures of our dry and scorching summers.

VARIOUS

other articles, which perhaps from their individuality could not well be classified, richly deserve notice. "Points are Pins" I have read over and over. "Rail Stockholders" ought to be studied by all who own shares or ride in the cars. "Chronicles of a Clay Farm" is by no means as "heavy as mud." Some excellent hints on the Improvement of "Winter Evenings;" on "Thanksgiving;" on the "Cultivation of Willow," &c.

A READER.

Winchester, Jap., 1854.

SWALLOWING A HORSE.

Mr. Gardner, in his "Travels in Brazil," confirms the early accounts respecting the size and prodigious swallowing capacity of the boa constrictor—accounts which certain naturalists, whose researches never extended beyond the galleries of a museum, are in the habit of treating with ridicule and unbelief. "The boa," said he, "is not uncommon throughout the whole Province of Goias, particularly by the wooded margins of lakes, marshes and streams. Sometimes they attain the enormous length of forty feet; the largest I saw was in this place, but it was not alive. Some weeks before our arrival at Sape, the favorite riding horse of Senor Lagoceira, which had been put out to pasture not far from the house, could not be found, although strict search was made for it all over the hacienda. Shortly after this, one of his vaqueros, in going through the wood by the side of a small river, saw an enormous boa suspended in the fork of a tree which hung over the water; it was dead, but had evidently been floated down alive by a recent flood, and being in an inert state, it had not been able to extricate itself from the fork before the waters fell. It was dragged out to the open country by two horses, and was found to measure thirty-seven feet in length. On opening it, the bones of a horse were found in a broken condition, the head being uninjured. From these circumstances

it was conceded that the boa had devoured the horse entire. In all kinds of snakes the capacity for swallowing is prodigious. I have often seen one not thicker than my thumb swallow a frog as large as my fist; and I once killed a rattle snake, about four feet long, and of no great thickness, which had swallowed not less than three frogs, one of which swelled out its side nearly twice the thickness of the other parts. I have also seen a very slender snake that frequents the roofs of houses, swallow an entire bat three times its own thickness. If such be the case with these smaller kinds, it is not to be wondered at that one thirty-seven feet long should be able to swallow a horse, particularly when it is known that, previously to doing so, it breaks the bones of the animal by coiling itself round it and afterwards lubricates it with a slimy matter which it has the power of secreting in its mouth.

For the New England Farmer.

VERMONT STATE AGRICULTURAL SOCIETY.

A VISIT TO DAVID HILL, Esq., BRIDPORT, VT.

MR. BROWN:—I recently attended the annual meeting of the Vermont State Agricultural Society, at Middlebury, held for the choice of officers, awarding of the winter premiums, and other business. The officers of last year were mostly re-elected. Premiums were awarded for various fine field-crops, for the best system of preparing manure, and for essays on various subjects. I will endeavor to furnish you with some of the essays and statements on crops and manure, for publication in the *N. E. Farmer*. The meeting was well attended, harmony prevailed, the Treasury was found respectable in funds on hand, and the members parted with the feeling that the prospects of the society are good. Those who have ever engaged in starting associations of this kind, without funds, and with everything to be arranged and ventured upon without the aid of exact experience and precedent, understand well that there is work in it. The Vermont Society is now entering upon its fourth year; and although it began in great pecuniary weakness, it has had the support of resolute and intelligent men, each year has added materially to its strength and efficiency, and I believe it is now favorably regarded by a goodly number of our citizens.

After the meeting of the State Society, upon invitation of DAVID HILL, Esq., I accompanied him to his place in Bridport, to see his celebrated horse, old "Black Hawk," and his progeny.—Persons who have ever visited Mr. HILL, never forget his hearty hospitality and pleasant address. Though now considerably in years, Black Hawk feeds well, is very animated and vigorous, and as playful as a colt. Every precaution which good judgment would dictate, is used to promote Black Hawk's health and prolong his life. His winter apartments are such as become a horse of his fame

and value. He has a room some twenty feet square, high, airy and of healthy temperature, with the natural ground for a floor, sprinkled with clean straw, where he has liberty to roll, frolic, and do as he pleases. He passes at will from this room to a stable and manger where he is fed. He neither wears shoes, halter nor blanket; is not groomed, though kept free from filth by perfectly cleanly apartments; and his food consists of the best quality of hay, with but little grain. By means of this winter treatment, his blood is cooled and purified, constitutional vigor is promoted, and his life will probably be lengthened. Stock horses of the Morgan breed, if kept too much confined and too high in old age, are liable, from their great appetite and powers of digestion and assimilation, to become too fat, and to be suddenly attacked by apoplexy. At a suitable time in the spring, Black Hawk is shod, harnessed and exercised daily in a gig, nicely groomed, and fed more highly with grain.

Black Hawk is of a coal black color, has a heavy mane and tail, is of splendid conformation, and very intelligent. His pedigree has been often stated in print, and you are doubtless aware that he was got by the famous horse "Sherman Morgan," out of a sporting mare considerably in the blood of the thorough-breed. The experienced eye, in observing Black Hawk, readily detects in him the Morgan qualities of compactness, substance, a full development of those organs which give great powers of digestion and assimilation, docility and kindness of temper, combined with the oblique and high shoulder, liberty of limb and high mettle of the thorough-bred. His combination of blood is very remarkable; and it may perhaps be doubted if his like has ever been known for perpetuating the qualities of the sire so uniformly in so numerous a progeny. With due notice, Mr. Hill could assemble more than a hundred horses begotten by Black Hawk, all showing that uniformity of conformation and movement, almost incredible to persons not conversant with the fact—all possessing extra trotting speed, with docility, spirit, and that intelligence which readily learns whatever it is desirable to teach them; in short, with that rare combination of qualities fitting them for sporting, fancy or practical service.

It is an interesting fact, that Black Hawk has been frequently a pecuniary benefit to persons in moderate circumstances in his neighborhood. Several instances were cited to me of young men, farmers, mechanics and others, who having bred from him, have from the sale of their colts realized enough over and above the cost of production to clear them of debt, and enable them to pursue their legitimate callings to advantage.

Mr. Hill has several young colts by the old horse. One, a recently weaned foal out of a val

uable Morgan mare, is very promising. This mare was by the celebrated old Morgan Horse "Comet," or sometimes called "the Root Horse;" and her dam was of Messenger descent. Mr. Hill had the misfortune last spring to lose a two-years-old colt, own brother to the one above named, and which I thought a year ago now, the most promising colt of his age I had seen.

Mr. EDGAR HILL, son of D. Hill, Esq., and living near his father, has a young stallion by Black Hawk, out of the dam of the "Myrick Horse." He is a stock horse of great promise, and several opportunities have already occurred to sell him at a high price. Mr. Edgar Hill has several promising colts by Black Hawk. He is trying the experiment of coupling Black Hawk with fillies of his own get, so as to obtain colts three-fourths in the blood of the old horse. Great care is used, however, in selections for this course of breeding; none but mares of extra limb and substance being chosen. He has a three-fourths blood weaned foal, which is very fine and vigorous, and argues well for the experiment.

Where mares of extra trotting speed have been coupled with Black Hawk, the colts have with few or no exceptions proved fast trotters; and indeed almost any good middling mare bred to him produces a colt of considerable more value than the average of serviceable horses.

F. HOLBROOK.

Brattleboro', Jan. 11, 1854.

For the New England Farmer.

FARMING IN NEW ENGLAND—No. 1.

The farmers of New England can successfully compete with those in the more fertile regions of the West, only by conducting their operations with superior science and diligence. It is only by the aid of science and the cheapness of labor, that the British agriculturist can save himself, under the operation of the free trade system, from being inundated by American productions; and the relations of the New England farmer to the Western, is quite analogous to that between the English and American. In England there is hardly one cultivator of the soil to four manufacturers and artisans, but in the United States, the case is exactly the reverse, there being about four cultivators of the soil to one in all other occupations. By the census of 1831, out of 3,414,175 families in Great Britain, 961,134, or nearly a fourth, (282 in 1000) were employed in the product of food. The census of 1841 showed a still greater disproportion between these two classes, the agricultural population having in many places declined, and the manufacturing having immensely increased. The census of 1851 exhibited a wider disproportion still so that now considerably less than one-fourth are employed in raising food for considerably more than three-fourths of the population.

In the face of all these facts, however, the importation of corn into Great Britain, except in cases of unusual scarcity, has been gradually diminishing for the last thirty years. How, then, is the Eng-

lish farmer able to meet this constantly increasing demand? The answer is by bringing to his aid the most recent discoveries in science, relating to the constituents of different soils, rotation and adaptation of crops, the chemical qualities of the various vegetables cultivated, and of the food which they require, &c., together with the latest improvements in agricultural implements. And in like manner, the New England farmer can compete with the Western, only by employing the same means. But the New England farmer labors under this additional disadvantage. Taking in the whole country west of the Alleghany mountains, the proportion of the population engaged in agricultural pursuits is as eight to one in all other pursuits. There, where the forests and the prairies are to be subdued, the old remark of Adam Smith still holds good, that a widow with eight children is sought after and married as an heiress; and as in the days of the patriarchs, the greater the number of arrows in the quiver of the Western cultivator, the greater is his strength in the gate.

Against this all but overwhelming competition, the New England farmer, on his sterile soil and worn-out acres, can never sustain himself, except by bringing to his aid every improvement which discovery in science and invention in art has brought to light, and which is adapted to his purpose. To cry out against these improvements and to refuse their assistance, is, therefore, clearly suicidal. The vast importance of this topic to the prosperity of New England can hardly be overrated, and some other considerations relating to it, will be presented in subsequent papers. D. C.

Waltham, Jan., 1854.

REMARKS.—In this and subsequent articles which we are promised, the reader will find the subject of *New England Farming* discussed in a manner differing considerably from the usual mode of considering it, and must, we think, convince the doubting of the importance of a more systematic, and scientific management of farm affairs.

For the New England Farmer.

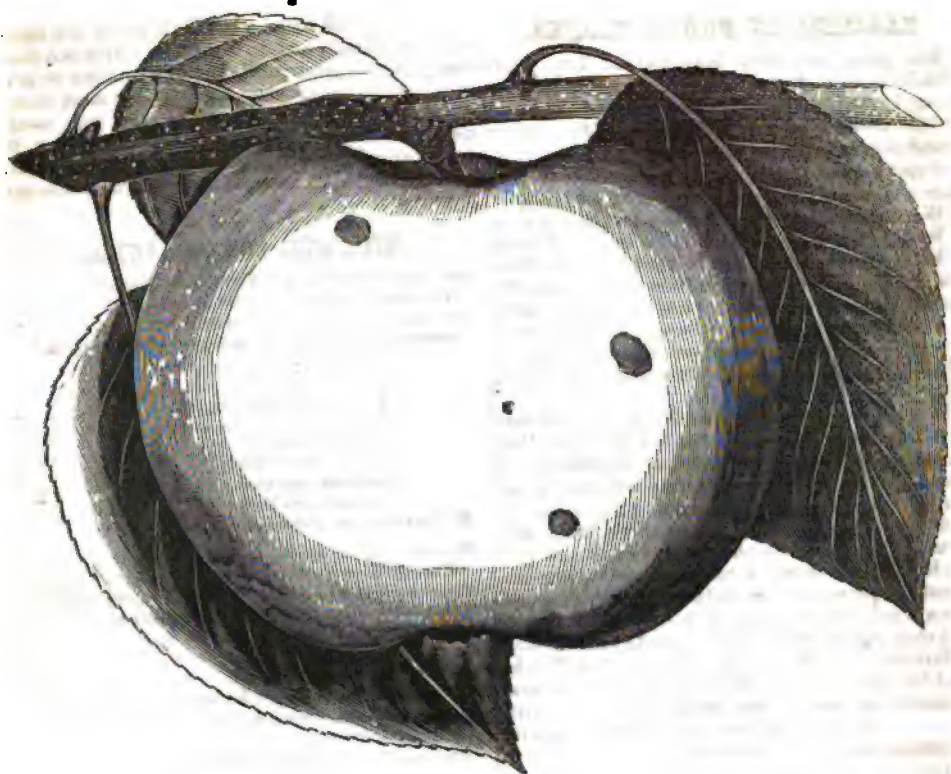
THE DIX PEAR.

MR. EDITOR:—In the *Farmer* for January, a correspondent, in speaking of the *Dix Pear*, says that it does not fruit for 15 years on the pear stock, and that the obvious remedy would be to graft on the quince. But a nurseryman says that it is not good on the quince, though it may possibly bear earlier, and that scions set in an old stock must remain fruitless for 15 years. I have three trees on the quince, planted four years, all of which bore a fair crop of fine *Dix* pears, and look well for the coming season. Barry, in the *Fruit Garden*, says of this excellent pear, "it succeeds on the quince double worked, but not otherwise." I can see no sign whereby you could tell that they have been double worked. The trees are vigorous, and about six feet in height.

Yours, BLYTHWOOD.

Swampscot, Jan. 12, 1854.

CHEAP PAINT.—An excellent and cheap paint, for rough wood work, is made of six pounds of melted pitch, one pint of linseed oil, and one pound of yellow ochre.



DANVERS WINTER SWEET APPLE.

An abundance of good winter sweet apples is demanded in our markets more than any other fruit. Everybody likes them, cooked or uncooked; they are wholesome, easily prepared, and ought to be plenty and cheap.

We were favored with the original of the portrait above, by the Hon. J. W. Proctor, of Danvers, a gentleman who, although not a farmer, watches agricultural progress with unceasing interest. In a communication to the *Farmer* of last year, he says:—

"As to the Danvers Sweet, we know the town and the farm on which it originated. I have been familiar with it from my earliest years. It was owned by Daniel Eppes, Esq., at the time of the discovery of the tree from which so many good apples have proceeded, and which now continue to refresh all lovers of *apples and milk*, (than which few better dishes can be found.) This apple holds its original character with great distinctness. It has not the variety of shades that mark the Baldwin—it is unmistakable. Perhaps, like all other fruits, modified somewhat by the strength of the soil, or exposure to the sun; for all fruits are benefited by a fair exposure to light and heat, as well as the animal creation. How far these fruits have been, or are liable to be modified by

the stocks on which they are *budded or engrafted*, is an inquiry beyond my power to answer. If the stock does not have some influence on the quality of the fruit, I should think it very strange—but that it does, I am not prepared to assert. If it does, then we can never be certain of continuing any particular variety of apple for any considerable length of time."

Mr. Hyde, another of our intelligent correspondents, and a practical fruit culturist, in an article in volume 4, page 176, does not speak so favorably of this variety.

We consider the Danvers Winter Sweet a variety richly worthy of cultivation. It takes its name from the town in which it originated.—Fruit of medium size, roundish oblong. Skin smooth, dull yellow, with an orange blush. Stalk slender, inclining to one side. Calyx set in a smooth, narrow basin. Flesh yellow, firm, sweet, and rich. It bakes well, and is fit for use the whole winter, and often until April.

At the recent Ohio State Fair, a rare genius took upon the show ground a hand cider-mill of the improved kind, together with a quantity of cider apples, and essentially hit *three* birds with one stone. He made his cider; sold it as fast as made

at five cents a glass; and at the same time showed his machine to the best advantage.

FARMERS IN PUBLIC PLACES.

The press has been burdened of late years with lectures and sermons and satires, addressed to agriculturists, reprobating the fact that, on public occasions, as cattle shows, &c., when speeches are to be made, they fall into the rear, and speak only by proxy. Facts are as stated. We have a word or two to say as to their propriety.

We remember that Lord Mansfield is reported to have said that he should be as much ashamed to know statute law as not to know common law. The reason is obvious. Statutes are constantly changing, and not one in a hundred is ever called to the notice of a lawyer. Hence, to study them so as thoroughly to understand them in all their relations, would be time thrown away, and labor without profit.

It is so, in our opinion, with the entire catalogue of working-men. If any one has the "gift" of public speaking without study, or experience, or science, we know not why he may not *show it up*. For the sake of the bar and the pulpit, and for their clients' and hearers' sake, we wish this faculty did "come by nature." But we are persuaded that it is not thus that men become eloquent, or persuasive, or instructive. Such qualities are only the result of much reading, of careful and close study, and no little experience. Hence, if farmers do make speeches, the presumption is, that the result will be about as if a lawyer were to undertake some of the most difficult and intricate of farmers' work, or a clergyman were to undertake to play the mechanic.

True, we have some lawyers and some doctors, and some men of leisure, who enrol themselves on the list of farmers. Some are educated at college, or other equally useful institutions, so as to make them conversant with languages and with science; and thus, and *thus only*, are competent to acquit themselves handsomely in public speaking.

But not one half the lawyers, nor one half the ministers, nor one half the doctors, can make a good speech at a dinner-table, or at a public anniversary. Our Benevolent Societies, annually meeting in New York and Boston, are obliged to use over their old stock, and that, too, several times within our own recollection, and even then fail to sustain the interest with which they first began. This is a matter of notoriety. Under such circumstances, to laugh at farmers for not exposing themselves as volunteer bores, is far from being judicious or in good taste.

The farmer who toils all day, and at night makes plans for to-morrow, how can he be expected to become a good and acceptable speaker? If he has acquired the art before he becomes a farmer, or the mechanic before he becomes a working mechanic, it is all well. We wish many, a *multitude*, might thus qualify themselves before they commence these arduous pursuits.

Besides, our farmers are proverbially modest men. Different causes conspire to make them so. We should regret a change, and nothing would so thoroughly effect this change as frequent public debate. We have known a few absolutely ruined by this very process. They "outgrew their shoes." They substantially outgrew their dresses and their

entire habits, and, like some of old, did nothing but hear or *tell* some new, and yet some thrice told story.

We commend these considerations to our agricultural friends, and to the press. It is not necessary to be a good public speaker in order to be a *MAN*. At the same time, some of our most fluent "orators" are, and are regarded as, very small men, while those who are always speaking in public are always laughed at. Of this, the last, we never knew an exception.—*Plough, Loom and Axvil.*

THE OLD CORDWAINER.

One moon-shiny night, Thanksgiving was coming,
I mounted in haste Uncle Jeremy's mare;
Og, Dobbin, said I, let your trotters be drumming,
Down towards Uncle Lot's, and she soon had me there.
O, good Uncle Lot,
I remember the spot,
And the bench where he sat,
With his strap o'er his knee;
Our shoes were all ready,
For me, and for Neddy,
For Dolly, and Betty,
For Sally, and Hetty;

What a faithful old cordwainer was he.

Then there was the stitching so strong and so nice,
Why, the threads held the leather, as strong as a vice;
There was none of your pegging, nor none of your nailing,
No fretting, no scolding, no jarring, no railing.

When shoemaker Lot,
He worked on the spot,
Which I've not forgot,
With his strap o'er his knee;
He was honest and fair,
And exact to a hair,

What a useful old cordwainer was he.

But alas! now-a-days, how changed is this matter,—

Now honesty seems to go begging about;
One scarce has a shoe, or a coat, or a garter,
That lasts more than three weeks, before 'tis worn out.

O that some Uncle Lot
Would again take the spot,
And the bench where he sat,
With his strap o'er his knee;
And would work at the trade,
And have shoes faithfully made,
No cheating, no cozen,
No rips by the dozen,

What a useful old cordwainer he'd be.

BUFFALOES.

A member of Gov. Stevens' northern route exploring party, in a long communication to the *St. Louis Republican*, written from the head of Yellow Stone, relates the following among many other "sights and incidents" of the party thus far:—

On Sunday, after a march of some ten miles, the buffaloes were reached. They were before and on each side of the train. For miles ahead it seemed one vast drove yard. They were estimated by some as high as 500,000—200,000 is considered a very low estimate. Drawing up the train at our usual halt at noon, a large herd were about half a mile ahead. The hunters, six in number, were immediately dispatched, well mounted on spare horses reserved for that especial purpose, and the whole train had an opportunity of witnessing a buffalo hunt. The hunters dashed in among the herd, picked out the fattest of the

cows, and then separating the selected ones from the herd, soon despatched them. In less than an hour the wagons were sent but a small distance from the route to receive the choicest pieces of the buffalo.

In the next two days' march the hunters were kept some distance ahead, to keep off the buffaloes; it was the only way the safe passage of the train could be insured through this sea of flesh. The pack mules and spare animals following on in the train, too numerous to be separately led, were hard to control; and despite every precaution and care, one horse and four mules were lost, they getting mingled with a herd of buffaloes. Every effort was made to reclaim them—hours spent in their attempted recovery. The efforts were entirely useless.

WILL DRY GYPSUM ABSORB AMMONIA?

That is, will dry ground plaster, spread on the manure heap, prevent the escape of its ammonia, so that on entering the stable where horses are kept, or the barn cellar, where the droppings from the leanto are collected, we shall not smell any odor from them?

As these escaping gases are very valuable, and as the amount of plaster now annually used for this purpose, amounts to a heavy item of expenditure in farm husbandry, the question is an important one.

That the plaster so used upon manures will absorb the ammonia, the editor of the *Maine Farmer* says he "has always considered to be the true doctrine, he having sprinkled it on fermenting heaps of horse manure, and thereby destroying the odor." He adds, "we have also scattered it in and about privies, and neutralized the offensive odors thereof, for a time, and without any further examination supposed the theory correct."

On the other hand, the editor of the *Rural New-Yorker* "denies that plaster will thus unite with ammonia, unless it be dissolved." To establish this theory he says a scientific farmer and writer took some plaster and guano and rubbed them together in his hand, and upon applying it to the nose, found that "instead of fixing the ammonia, the plaster aided the decomposition of the guano, and the ammonia was driven off with considerable rapidity."

The test was a simple one, but was it a fair one? Could a sufficient quantity of plaster be held in the hand to neutralize the odors of even a single thimble-full of so concentrated and powerful a manure as guano? We think not, and do not consider such a test as settling the question.

The editor of the *Farmer*, in support of his theory, quotes the experiments of another practical man, Professor CAMPBELL, of North Carolina, "by which it would seem that plaster in a dry state, does actually absorb, or rather decompose, carbonate of ammonia, while flying off from fermenting manures."

Mr. Campbell made an experiment which he says was conducted as follows:—

"A barrel was filled with fresh scrapings from the stalls of horses. Over the manure, as thrown in, a little ground plaster was sprinkled from time to time. After the barrel had been compactly filled, it was allowed to stand some weeks until it had gone through the heating process which always takes place when newly collected manure is thrown into heaps. But during this heating or fermentation (as it may with propriety be called,) there was none of that 'vapor' or strong odor which ordinarily arises from fermenting manure heaps. When the mass had become cool, clean rain water was passed through it and collected at the bottom of the barrel. This water was found to contain one of the elements of plaster, and one of the volatile substances (carbonate of ammonia) above alluded to. On emptying the barrel, a white powder, looking very much like plaster, was found mingled with its contents. But when tested, this powder was found to contain only one of the elements of plaster; while it contained also one element of the volatile carbonate of ammonia just mentioned."

We have great confidence in the theory of the editor of the *Farmer*, and that confidence has been gained by several years' practice of that theory. When the horse-stalls have been neglected, and the odor arising from them has become exceedingly pungent, we apply the dry plaster, and, presto, the stalls are sweet. And so of the cattle stalls, the cess pools, the drains, and any other olfactory nuisance that comes in sight.

This dry plaster, however, is never applied to dry substances. When thrown upon the horse and cattle stalls, the litter and the floor are wet; if they were dry, there would probably be no odor. But who has dry piles of manure in these days of inquiry and progress? Certainly not the man who is in the habit of using plaster. The dry heaps under the barn windows, resembling camel's dung that has bleached an age on deserts of sand, belong to men of another age, who laugh at you for expecting to find *virtus in stones*, and look upon *ammonia* as a cabalistic word, which, like Pandora's box, is filled with all manner of evil.

The theory of the editor of the *Rural New-Yorker*, in this view of the case, may be correct; we do not believe, however, that it is necessary to go to the trouble of leaching the plaster, and using the water thus impregnated with it.

The best mode of retaining the valuable properties of manures until they are wanted for use, is to apply to them daily, such portion of finely pulverized, old meadow muck as will take up the juices so that none of them will leach out. This muck is the cheapest, most accessible and convenient, and at the same time one of the most copious absorbents and best deodorizers at the command of the farmer. Try it in the filthiest pool or on the most fragrant heap of offal you can

find, and see what a magic power it possesses! Keep a winnow of it in the cellar in front of the place where the droppings from the stall accumulate, and each day cover them so as to add as much again muck as there is of the droppings, and the whole mass shall be of as much value as the same number of loads of pure droppings, left

"To waste its sweetness on the desert air."

No man in this State was better qualified, we think, to pronounce an opinion upon this subject, than the late Mr. PHINNEY, of Lexington; no other person, probably, had used so much muck, or made so many careful experiments with it upon almost all kinds of crops. We have often heard him say that three loads of compost prepared as we have described above, was fully equal to three loads of the unmixed manure.

For the New England Farmer.

THE WAY TO MAKE A WIFE CHEERFUL.

I am aware that many husbands feel inwardly to complain because their wives do not always wear cheerful countenances. Now I would say to such that the fault is not in the wife, but in the husband generally. So far as my observations will prove, in nine cases out of ten, the husband is in the fault when things do not go right indoors. I am well convinced that there are those who have been husbands for years, who do not know, or rather who do not seem to know, what belongs to them as husbands. And for those of this class I desire to impart a little information, hoping that they and their wives may be benefited thereby; for I deem it indispensable to the happiness of a family to have the wife cheerful in and around the house-fire-side.

Now it is well known that many husbands will lie in bed in the morning, and allow their wives to get up and build the fire. In my opinion this does not belong to her to do, (unless her husband is indisposed.) It comes under the head of the husband's duties to build the fire, draw the water, and put on the tea-kettle; and further, when there are children, he should assist in dressing them; for there is nothing that will put a smile on the face of the wife like having a "good start" in the morning. And at all times during the day (whenever he is in the house), the husband should interest himself in the care and management of the children. Another thing will add greatly to the cheerfulness of the wife, and that is, always enter the house with clean feet. Tracks of muddy boots on a clean floor are very apt to put an unpleasant look on the face of a tidy wife; and well it may, for there is no need of a husband being so slovenly. No husband need be in so much of a hurry, or so negligent, but that he can clean his feet on the door scraper. Can not every husband see that a little neatness on his part saves labor to the wife? One thing more I will mention, which in my opinion tends very much to the object in question; and that is, for the husband to spend as much time with his family as possible, certainly his leisure hours. His house should be made the place of his evening's

resort, and his time spent (if there is nothing else called for,) in reading interesting books to his wife and children.

There is much more which might properly be said, but I trust "a word to the wise is sufficient."

A. TODD.

Smithfield, R. I., 12th mo., 1853.

THE COLD FRIDAY OF 1810.

The 19th of Jan., 1810, was a day the intense coldness of which will be long remembered by those who experienced its rigor. Those who were not out of doors, but had reached an age rendering them capable of retaining impressions then received, have doubtless a recollection of occurrences taking place around them. The evening previous was as mild as those we have been favored with in such numbers this winter; but in the night the wind changed, the wind suddenly became cold, and the mercury in less than 16 hours descended to 13 degrees below zero. A boisterous wind prevailed, by which trees, and in some cases houses, were blown down, and the day became memorable in New England as "The Cold Friday." Here in Concord, so near as recollection serves, there was very little going from place to place. Farmers piled on the wood and attended to their cattle, and that was about all for the day. In this village, such as went to the neighbors or to a store, upon errands which could not be deferred, sped over the ground like squirrels, and were fortunate if they returned with no flesh frozen by the intensity of the frost.

From vol. v. of the New Hampshire Historical Society's Collections, the following account is taken of an occurrence on that day in the town of Sanbornton:

"On Friday morning, the 19th of January, Mr. Jeremiah Ellsworth, of Sanbornton, finding the cold very severe, rose about an hour before sunrise. It was but a short time before some part of his house was burst in by the wind. Being apprehensive that the whole house would soon be demolished, and that the lives of the family were in great jeopardy, Mrs. Ellsworth, with her youngest child, whom she had dressed, went into the cellar, leaving the other two children in bed. Her husband undertook to go to the nearest neighbor, which was in a north direction, for assistance, but the wind was so strong against him that he found it impracticable. He then set out for Mr. David Brown's, the nearest house in another direction, at the distance of a quarter of a mile. He reached there about sunrise, his feet being considerably frozen, and he was so overcome with the cold, that both he and Mr. Brown thought it too hazardous for him to return. But Mr. Brown went with his horse and sleigh with all possible speed to save the woman and her children from impending destruction.

"When he arrived at the house, he found Mrs. Ellsworth and one child in the cellar, and the other children in bed, their clothes having been blown away by the wind, so that they could not be dressed. Mr. Brown put a bed into the sleigh, and placed the three children upon it, and covered them with the bedclothes. Mrs. E. also got into the sleigh. They had proceeded only six or eight rods before the sleigh was blown over, and the children, bed and covering, were scattered by the wind. Mrs. Ellsworth held the horse, while Mr.

Brown collected the children and bed, and placed them in the sleigh again. She then concluded to walk, but before she reached Mr. Brown's house, she was so benumbed by the cold, that she sank down to the ground, finding it impossible to walk any further. At first she concluded she must perish, but stimulated by a hope of escape, she made another effort by crawling on her hands and knees, in which manner she reached her husband, but so altered in her looks that he did not at first know her. His anxiety for his children led him twice to conclude to go to their assistance; but the earnest importunities of his wife, who supposed he would perish, and that she should survive but a short time, prevented him.

"Mr. Brown, having placed the children in the sleigh a second time, had proceeded but a few rods when the sleigh was blown over and torn to pieces, and the children driven to some distance. He then collected them once more, laid them on the bed and covered them; and then called for help, but to no purpose. Knowing that the children must soon perish in that situation, and being pierced to the heart by their distressing shrieks, he wrapped them all in a coverlet, and attempted to carry them on his shoulder, but was soon blown down, and the children separated from him by the violence of the wind. Finding it impossible to carry them all, he left the youngest, the one who happened to be dressed, placing it by the side of a large log. He then took them one under each arm, with no other clothing than their shirts, and in this way, though blown down every few rods, he arrived at his house, after being absent about two hours. The children, though frozen stiff, were alive, but died within a few minutes. Mr. Brown's hands and feet were badly frozen, and he was so much chilled and exhausted as to be unable to return for the child left behind.

"The wind continued its severity, and no neighbor called until afternoon, when there was every reason to believe the child left was dead. Towards sunset a physician and some other neighbors having arrived, several of whom went in search of the other child, which was found and brought in dead. The lives of the parents were saved, but they were left childless."

Mr. Brown, we are informed by a gentleman of Sanbornton, lived until a few years ago, but never recovered from the effects of that day. He became nearly or quite blind, and continued thus as long as he lived.—*N. H. Statesman.*

For the New England Farmer.

MEASURE AND WEIGHT OF MILK.

MR. EDITOR:—Being under the necessity, by reason of the violence of the storm, of keeping close aboard, I was thinking of your neighbor's "butter stock," which yield a pound of butter, for each and every four quarts or gallon of milk, and the quere arose whether he reckoned 8 or 10 pounds to a gallon. The ordinary mode of reckoning has been after the English rule, 10 lbs. to a gallon—though this is not the standard rule, at present, in this country. Eight pounds is near the weight of a gallon—*wine measure*. I wish he would be particular in his information on this point, because it makes about *one-fifth part* difference, whether you reckon ale and beer or wine measure, one containing about 40 square inches

more to the gallon than the other. This variety in measure produces great confusion of ideas—and demands precise regulation by law.

In looking at the statements of the several claimants for premiums on milch cows, in Worcester county, as recently published in the Transactions, I find the average product of the several cows presented, during the first ten days in June, 1853, to have been 40 lbs., or 20 quarts a day, to each cow. Now if *Worcester milk* is equal to *Middlesex milk*, this would give 5 lbs. of butter a day to each cow. The man who shall introduce a stock that shall do this, will be entitled to name it as he pleases. Am I wrong in my calculation? If I am, I should like to be corrected. Is he wrong in his statements? If he is, the sooner they are set right, the more to his credit will it be. I would cheerfully travel a hundred miles to see some of these "gallon cows" or "butter stock"—and whenever the owner has them prepared for exhibition, I think all admirers of good butter should be there to see.

FRANKLIN.

THE PRESERVATION OF EGGS FOR WINTER USE.

It should be borne in mind, that eggs are mainly composed of albumen, mixed with a minute quantity of the salts of sulphur, phosphorus, lime, and magnesia. The shell consists mostly of lime. Of the whole weight, the shell constitutes about one-tenth, the white six-tenths, and the yolk three-tenths. Few animal substances are so putrescent as eggs, unless preserved with care. The shell, composed as it is mostly of lime glued together with a trifle of animal matter, is its most natural and safe depository. Yet even the shell yields gradually to the action of the atmosphere, so that a part of the watery fluid of the egg escapes, and air occupies its place, thus injuring the quality of it. The great secret, then, of preserving eggs, is to keep the interior in an unaltered state. This is best done by lime water, in which a little common salt is infused. This constitutes a fluid perfectly indestructible by air, and one that is so allied to the nature of the shell as not to be absorbed by it, or through it into the interior of the egg. On the other hand, salt or lime, in a dry state, will act on the moisture of the egg, as will strong ashes. This plan, also, will save more eggs in a given space than any other. It will also admit of keeping them in cellars ever so damp, and, I had almost said, ever so foul, since nothing will be likely to act on the lime-water. As eggs are very nearly of the specific gravity of water, and so near with it I have little doubt that eggs barreled up tightly, in lime-water, could be transported as safely as pork. Lime-water may be made in the most careless manner. Seven hundred pounds of water will dissolve about one pound of lime. A pint of lime, therefore, thrown into a barrel of water, is enough, while ten times as much can do no hurt, and will not alter the strength of it. The salt, which I do not deem very important, should be put in a small quantity, say a quart to a barrel. All are aware that a very large quantity of salt may be dissolved in water. Brine, strong enough for pork, would undoubtedly hurt eggs. Having made your lime-water, in barrels, if you are a merchant, and in stone pots, if you are a small householder, drop your eggs on the top of the water, when they will

settle down safely. It is probably important that no bad eggs go in, as it is supposed by some that they would injure others. To test your eggs put them in clean water, rejecting all that rise. A better remedy is to look at them through a tube—say a roll of paper—by day-light, or hold them between your eye and a good candle by night. If the eggs are fresh, they will, in either case, look transparent. If they are little injured, they will look darkish. If much injured, they will look entirely dark. Eggs, well put up and kept in this manner, will keep, I cannot tell how long, but until they are much more plenty and cheap than at present, quite long enough. Leached ashes well dried, and even grain, have kept eggs very well, in my experience; but no method is so cheap and obvious as the lime-water. As lime absorbs carbonic acid slowly, and thus becomes insoluble, so almost any lime, even though it has been slacked for months, will answer the purpose. Lime-water, permitted to stand still, will immediately be covered with a transparent film. This is the lime of the water uniting with the carbonic acid of the atmosphere, and returning to the state of lime-stone, and does not hurt the eggs.—*Mark Lane Express.*

TO FARMERS.

Neat be your farms: 'tis long confessed
The neatest farmer is the best.
Each bog and marsh industrious drain,
Nor let vile balks deform the plain,
Nor bushes on your headlands grow,
For briars a sloven's culture show.
Neat be your barns, your houses neat,
Your doors be clean, your court-yards sweet;
No moss the sheltering roof enshroud,
Nor wooden panes the window cloud;
No filthy kennels foully flow,
Nor weeds with rankling poison grow;
But shades expand and fruit trees bloom,
And flowering shrubs exhale perfume;
With pales your garden circle round;
Defend, enrich, and clean the ground;
Prize high the pleasing, useful reed,
And fill with vegetable good.

THE ATMOSPHERE AND ITS EFFECTS UPON ANIMAL LIFE.

A very interesting lecture was delivered by Dr. Griscom at the New York Mechanics' Institute, on the "Influence of Air in connection with Animal Life." Some of them would be surprised to hear that they lived at the bottom of an immense ocean of air fifty miles deep; yet it was so, and the color of this ocean, which is called the atmosphere, is a deep cerulean blue. To perceive this it was necessary to be able to see at once the whole volume, and also on a calm and clear day, for no color could be perceived if seen in small quantities, or when there was either wind or haze. In like manner the color of water could not be seen in small quantities, and was only perceptible where there was a vast expanse of ocean. The air was also a substance capable of condensation and expansion. Its expansion was seen in the winds, by which ships were made to traverse the ocean, and also in windmills. The tornado was another phase of its expansion, by which trees were uprooted and houses overturned, and was almost equal to the power of steam. The

greatest weight of the atmosphere was fifteen pounds to the square inch, and this weight presses on every way, both upward and downward. To explain the pressure upwards, the lecturer exhausted the air out of a large vase, which then remained fast to the plate on which it stood, but on the air being let in it was easily removed. I remember, said he, being asked the question, if there is a pressure of fifteen pounds to the square inch, the reason why we were not at once crushed by the weight; but this is, as I before explained, because the air presses in all directions with the same equal force, and hence there is an equilibrium. This is a most important element, and one that requires to be known, and also that the air never presses more than fifteen pounds to the square inch.

The next quality of the air is elasticity. Press it to make it occupy a smaller space than it otherwise would, and then take away the weight, and it comes back and occupies its original space. The lecturer then explained that in the air there were two gases; one oxygen, which is that part of the atmosphere by which chiefly we live, and which is the one-fifth part; and the other nitrogen, which is four-fifths of the atmosphere. Oxygen supports life and combustion, and nitrogen restrains its effects and dulls its operations. The quantity of air which a person consumes depends in a measure on one's self, and by training can be made more or less. The tailor and the shoemaker take little in comparison with the laborer, and the public speaker or singer, or those who cry commodities for sale through the streets. A man in good health makes eighteen respirations in a minute, and in twenty-four hours consumes fifty-one hogsheads of the air. As the oxygen which supports life is so small, we ought to be very particular how we permit other gases to mix with it and vitiate it. The blood when it enters the lungs is black, but when the oxygen acts on it, it becomes red, and sends it through the veins to impart life and animation. This black blood is produced by carbon, and imparts the blackness which we see in the face of persons who lose their lives by suffocation, because the air was not allowed to reach the lungs to purify it. When we send out the air from the lungs, we do not send it in the same manner as we inhaled it, for when exhaled it is as deadly a poison as arsenic or corrosive sublimate. The lecturer showed this by experiments, and filled a vase with his own breath in which a lighted candle would not live. It was such air as killed persons who went down into wells in the country, or who died when a pan of charcoal was placed in a room. The danger of taking impure matter into the stomach was not so great as into the lungs, for the stomach had power to eject impurities which the lungs had not. Besides the impure air which we exhale there are 2,800 pores on every square inch of the surface of the body, and to a body of large size there are 2,590 square inches; and these multiplied make 7,000,000 of pores. There is a sort of drainage pipe in the body, which sends out matter as well as gas, and this pipe is calculated at twenty-eight miles long. The particles of matter which are sent out and which do not dissolve, are so numerous, that in China, where the houses are low, and a great many persons are in the habit of assembling in one room, it has

been discovered that, after fifteen or twenty years, these particles adhere to the ceiling of the rooms, and the farmer will contract to put up a new ceiling if they are allowed to take down the old one, so valuable has it been found for manure.—*Scientific American*.

ZINC PAINTS.

We are glad to find this new article coming in to very general use wherever it can be obtained. Some of its principal merits are thus summed up in one of the Circulars of the company engaged in manufacturing it:

The following facts, which are the result of accurate experiment, show that zinc paints are much cheaper to the consumer than lead:

100 lbs. white zinc paint will cover, when applied in three coats, on new work, as much surface as 166½ lbs. pure white lead; but, estimating that it will cover but fifty per cent. more surface, and that it sold at the same price per pound as pure white lead, then the cost would be just two-thirds the cost of lead; to say nothing of the durability and beauty of zinc paints.

This argument (their relative cheapness) alone should decide the question in favor of the use of zinc paints; but their other merits are of more importance.

White zinc, even when exposed to coal, gas, bilge water and sulphurous vapors, retains its original brilliancy and whiteness; white lead quickly turns yellow.

Apartment *just painted*, may be slept in with impunity; whereas, according to the best authority, rooms should not be used for sleeping apartments for two or three months after being painted with lead.

The agents of the company have issued the following directions for using it:—

The paints manufactured by the N. J. Zinc Co., and ground in oil, are to be used precisely like white lead, thinning it for outside work with light colored linseed oil, and for inside use with spirits of turpentine or oil, having enough sicative mixed with the paint in the keg to make it dry for twenty-four hours. In winter a small quantity of zinc dryer, or any of the ordinary dryers, may be added.

FOR PORCELAIN FINISH.—Thin the zinc, ground in varnish, with enough Damar varnish to make it work free, and apply it only on a *pure white ground*, recently painted with zinc and thoroughly dried. If the first coat does not produce a sufficient gloss, apply a second.

On new outside work, it is recommended to apply a coat of gum shellac, to prevent the sap or pitch of the wood from staining the paint, made as follows: To 1 gallon alcohol, add about 2 lbs. gum shellac; dissolve by a gentle heat, then add about 2 lbs. dry white zinc, and strain before using. It will dry in five minutes, and will pay the cost of its application, by the saving of paint in finishing the work.

WHITE ZINC PAINTS should be kept in a dry place, never be covered with water in the keg, as it will cause the paint to harden.

Fifty pounds of zinc will cover as much surface as 70 to 90 lbs. of lead, according to the nature of the surface and style of work.

The paints ground in oil, are put up in kegs of 25, 50, 100, 200 lbs. and upwards.

Ground in varnish, in cans of 10 to 25 lbs. each.

Dry white zinc in barrels of 200 lbs. each.

PRICES.

No. 1, or Snow White, ground in Oil, ½ lb.	9 cents.
No. 2, or Silver White ground in Oil	8 cents.
Brown Stone Color, ground in Oil	6 cents.
Brown Zinc, ground in Oil	5 cents.
White, ground in Varnish, for Porcelain finish	15 cents.
No. 1, or Snow White, in blks. of 200 lbs.	6½ cts.
Zinc Dryer, ½ gallon	\$1.50
Damar Varnish, (White Varnish) ½ gallon	1.75

TRANSACTIONS OF WORCESTER AGRICULTURAL SOCIETY.

We acknowledge the receipt of a copy of these Transactions, from the attentive Secretary of the Society, WILLIAM S. LINCOLN. We have not yet had opportunity to look over its pages. The following remarks are from one of our most observing correspondents in Essex County.

"As in the *beginning*, so *now*, the name of Lincoln is conspicuous upon its pages. It is gratifying to witness the efforts of distinguished gentlemen to instruct their fellow-citizens. This remark is elicited by the perusal of the Report on Milch Cows. In these days of fancy estimates, it is salutary to return to sober instruction. Few men have had better experience in this matter, than the author of this paper. He says, 'we wish only to suggest, that what has been done elsewhere, may be done again, and here,—and that with judgment in the selection of stocks, and care in the rearing, as fine animals, of any race, may be found on our farms, and seen at our shows, as ever graced the Cattle Fairs of England.'

Numerous other papers, in this neatly arranged publication, will be perused with instruction. In some of them attempts at wit are apparent. This is a dangerous article to meddle with. Unless carefully spiced, it soon becomes stale. In the hands of a Lincoln and Poole, wit is acceptable; but when forced in, it nauseates. We perused the learned and eloquent address, before this Society, and while we were instructed by the author's remark on titles to estates and the principles of free trade, we could not but think it better fitted to some other arena, than a CATTLE FAIR."

DON'T PULL OFF THE SUCKERS!

MESSES. EDITORS:—In the *Country Gentleman* of week before last, I noticed an inquiry with regard to the propriety of pulling off from the Indian corn, the scions commonly called suckers. In my opinion, neither do the advocates for pulling off nor those for allowing them to remain, give correct reasons for their practice. Indeed, I have never known a farmer intelligent on this subject, nor have I any confidence that experiments conducted as proposed in the article referred to, will lead to any practical results. A little observation, science will give us more useful information on this subject, than years of experiment without it. That the suckers have an important office to perform in the production of the corn crop, and, therefore, should be allowed to remain, will, I think, appear from the following consideration.

The Indian corn (*Zea mays*) is a monoecious plant, that is, the staminate and pistillate blossoms occupy different positions on the same plant. The tassel, as it is commonly called, is the staminate blossom, and furnishes the pollen by which the silk is impregnated, and the new kernel is produced. The cob which bears the silk or pistillate blossoms, is in process of elongation after the pollen or dust has disappeared from the tassel. Just at the point where more pollen is needed to impregnate the silk at the end of the cob, the suckers and abortion stalks supply it, thus filling out the cob with kernels to the very tip or end. Where the suckers have been pulled off, it will be found that one or two inches of the cob is barren, thus causing quite a diminution of the crop. What amount of diminution the crop may suffer, I am not able to say definitely, but give it as my opinion at least, from a twelfth to a fifteenth part. If these suggestions appear of any value, you are at liberty to publish them, hoping they may be remembered until another year comes around.

Yours, &c., W. H. SCRAM, *Sand Lake Academy.*
—*Albany Cultivator.*

BUTTER AND CHEESE.

We give below a portion of the Report of the Committee of the "Rhode Island Society for the encouragement of Domestic Industry, on the subject of Butter and Cheese. We are under obligations to STEPHEN H. SMITH, Esq., the Secretary, for copies of the Transactions of that Society.

From these experiments it is shown that to obtain the best of sweet butter that will keep for a greater length of time than any other without being rancid, we must churn sweet cream—that if the butter-milk is valuable in market, and the butter can be disposed of soon after it is made, there will be the greatest gain by churning the sour milk and cream together—that by scalding the milk and then taking off the cream, the milk is best for market—although the yield of butter is greatest, and the flavor good, it must be put in market direct from the churn and consumed without delay or it becomes rancid and worthless;—that in proportion to the quantity of butter produced from the cream of a given measure of milk, reference being had to the length of time the cream is suffered to remain upon it, will be its liability to become soonest rancid;—that the excess of weight as exhibited above is to be attributed in a great measure to the absorption and combination of caseine (curd) with the oleaginous (oily) portions of the cream;—that the prevalence of caseine, although it is not objectionable by imparting any unpleasant flavor while new, renders the butter of less value, as it soon grows rancid; and for the further reason that it is used, necessarily, more profusely than new butter, which has less curd in it. It has been fully proved that milk contains on an average only one per cent. more curd than butter.

Dumas says, "that the facility with which butter becomes rancid, depends on the presence of caseine, (curd) from which it is necessary it should be separated in order to its preservation."

This can be effected by fusion (melting). For exportation to hot climates, or for the purpose of preserving early-made butter sweet through the

heat of summer for winter's use, it should be clarified before salting or much working. For this purpose it is put into a lipped vessel and placed in another of water, which is to be gradually heated, till the butter is melted. Care must be taken not to over-heat it; it must be kept melted until the curd and butter-milk have settled; the clear melted butter is then poured off from the sediment into small white kegs, containing from twenty to thirty poundseach, or into maple cannipails, of Shaker manufacture, for family use.

When sufficiently cooled, and before it hardens, it may be salted with less than half an ounce of fine rock salt to the pound, but as it is difficult to incorporate the salt well, the salt may be omitted and the butter will keep perfectly sweet. What butter remains in the vessel will rise to the top, and harden like tallow; when taken off the amount of curd and butter-milk will appear. You will then have the pure article, equal to the best of table butter for all the purposes to which sweet oil (as we get it) or drawn butter is applied—it is perfect for shortening—melt it in milk instead of water. It is not suitable to spread cold on bread.

One of your committee in the warm season last year, took seventeen pounds of sweet salted lump butter and proceeded as above directed. What settled at the bottom after melting, was composed of two ounces of limpid whey, two ounces of fine salt, and twelve ounces of curd, in all one pound. Had this curd not been extracted, the whole long before this (2d of Feb.) would probably have been rancid. The experiment proved perfectly satisfactory, and is recommended to the public. Store-keepers back in the country who take in butter, would find it to their account by putting it in practice, thereby diminishing the amount of "grease-butter" sent to market.

Adulteration of Milk, from *Bowman's Medical Chemistry*, as published in the *Providence Journal*, some time since;—"We have no chemical means of ascertaining whether water has been fraudulently added to milk; the only effect being to dilute it and render it of poorer quality. A knowledge of the specific gravity cannot here be made available, since the abstraction of cream, which has a lower specific gravity than milk, may be made to neutralize the effect produced by the addition of water,—the tendency of the removal of the cream being to raise the specific gravity, or weight of the milk, and that of the addition of water to lower it. A specimen of milk, therefore, which has been impoverished by the abstraction of cream, and still further weakened by the addition of water, may be made to possess the same specific gravity, or weight, as it had when taken from the can."

The average product of cow's milk is 15 per cent. of cream by the lactometer.

It is of quite as much importance to ascertain the average product of curd; but this can only be done by actual experiment, as no instrument will show it. Liebig says the nutriment in milk depends on the amount of curd it contains; and not on the amount of butter. An experiment was tried by feeding a dog with butter only; he became very fat, his hair was saturated with grease and he died at the end of thirty days. Those who were opposed to this view of the subject repeated the experiment and the dog survived, but this result was attributed to the great amount of caseine (curd) contained in the butter.

If the object of a Dairy be to make Cheese, cows should be bred and selected that give milk rich with curd; if the object be Butter, those that give a light milk will produce most; but if the object being the greatest profit in selling milk, such cows should be selected as will give the most milk and from which the least butter and cheese can be made from a given quantity.

It is a remark often made, and with truth, by those who have the care of dairies, that there are individuals among their cows, whose milk yields little or no cream, but abounds in curd; while the milk of others is very deficient in curd, but is not lacking in cream. The perfection of milk is the union of these two desirable properties, and its greatest defect in the absence of both.

A cubic foot of pure water weighs 1000 ounces avoirdupois very nearly.

The weight of all substances, except the gases, (all being brought to one temperature,) is, in relation to that of pure water, whose specific gravity (weight) is represented by unity, or one, thus:

Butter is lighter	1.000
Cream "	0.942
New milk average is heavier	0.980
Skin milk "	1.028
" "	1.038

In a former communication on the subject of Butter making, we disapproved of the practice of adding water to the cream, and of washing the butter, to rid it of its butter-milk. The carbonate of lime, found in water, causes the incrustation, which forms on the inside of utensils in which it is boiled. Butter absorbs the lime and magnesia, present in salt and in water, when it comes in contact with them; it has an injurious effect on its quality and preservation. It is therefore in all cases safest not to wash it, even if the water be pure, it will in a measure destroy its fine fragrance and flavor.

The use of pure salt cannot be too often recommended to those who have dairies in charge. More than a million of dollars can be annually saved to our farmers in this country by attention to this point. No one denies that good pure salt is made at our salt springs by solar evaporation, if taken from the first pan where all the crystals are perfectly square; but this salt comes to the consumer with various degrees of adulteration; and is therefore cheap, as to the first cost. After the square crystals of pure salt have ceased to form; then, by further evaporation the salts of magnesia and glauber's salts begin to show long needle-shaped crystals very bitter to the taste; easily dissolved and always found moist in damp weather. It will not preserve fish or meat, and when used for butter, will dissolve and run from it like water.—Whereas rock salt gives it firmness, which facilitates the extraction of butter-milk and preserves it sweet. Many bags marked rock salt, have been filled more than once; and many others never came in contact with it. Let the farmers club together, and send to a sea-port and get the best of Rock salt, sift out the fine, wash and dry the lumps, and have it ground at any gristmill in the neighborhood, as our fathers did, before the introduction of the very improved fine Liverpool bag or blown salt.

For the Committee, STEPHEN H. SMITH.

THE POTATO ROT.—Eli Dameritt, of Strafford, and Aaron Bridge, of Nottingham, write us that

they have discovered the rot in potatoes to be caused by an insect or maggot which eats into the potato, near the root or stem and poisons it. They made this discovery last fall, while digging their potatoes, and have since frequently found the maggot in those which were diseased. They recommend as an effectual remedy the application of a spoonful of sulphur to the vines of each hill when the potatoes are hoed. Our correspondents are good practical farmers and may be right, but the experience of more than one season will be necessary to establish the fact.—*Dover (N. H.) Inquirer.*

For the New England Farmer.

POOR LAND MADE RICH WITHOUT ADDING MANURE.

As this is rather a new theory, some may ask how is it possible to make poor land rich without putting on manure? I answer, by shading it. But my opposer may say if shade makes land rich, why does not the soil under large trees become extremely fertile? To this I answer as follows: the growth of the tree is constantly exhausting the soil, and if the shade did not tend to fertilize, the soil would soon become so impoverished that unless manure were artificially added the tree would die. If any one wishes to be convinced of the truth of this theory, let him try a piece of poor land in the following manner; cover it all over with brush three feet deep, let it remain covered four years, then remove the brush, and he will find that the soil has become rich although no manure has been added; at the same time let him leave a piece uncovered by the side of it, so as to see the difference.

Every intelligent farmer in the New England States knows that if he crops a field for twelve or fifteen years in succession without adding manure, the land will become so impoverished as to be almost worthless; but he may enter the forest and examine the soil which has been exhausted by the growth of timber for hundreds of years, and he will find it is still very rich. Now I ask, how the fertility has thus been kept up, if the shade does not tend to fertilize? My opposer may say it is kept up by manure made from the leaves of the trees. I will admit that the foliage tends to fertilize, but as the quantity of matter returned to the soil in this way is so small compared with what is taken up by the growth of the timber, it is very evident to every wise husbandman, that there must be another great source of fertilization, or the soil would soon become exhausted. I have about come to the conclusion, that of all the changes which vegetable and animal substances undergo during their decomposition, the product of the one only which has proved to be the aliment of plants, is the residue of putrefaction. I also think that a close, cool, dark and damp location, with a contact of air, is indispensable to the generation of the putrefactive process. Putrefaction may be considered the ultimate result of vegetable and animal decompositions, because it forms the only product incapable of any other change. The surface of the earth will readily undergo the putrefactive process, if favorably located, that is, if densely shaded. Dr. Baldwin says that the fertility imparted to the earth by shade, that is manure made of the earth itself, is more durable and therefore more valuable, than that made of any other substance whatever. He says no animal or

vegetable substance can properly be called manure, until it undergoes the putrefactive process, because it is not fit for the food of plants until it goes through this process.

Some farmers that do not well understand this new system may ask this question; how can straw benefit land when spread upon its surface? you have said that it cannot act as a manure because it has not been through the putrefactive process. I answer by shading it. You may ask farmers that are in the habit of raising flax, and rotting it upon their own land, if the grass is any larger where the flax lay than elsewhere; they immediately answer yes. Ask them why it is larger, they say the flax has manured the land! Ask them how has it manured the land! And not more than one in twenty can tell you.

Some have advised farmers to draw leaves from their woodlots to convert into manure; but I think this will not answer in all cases. Suppose a man has a very small woodlot, scarcely enough for the use of his farm; if he draws manure from this it will diminish the growth of his timber, which will be a damage to his farm. In other words, it may turn out like this: a certain man had a garden which was very rich, but the rest of his farm was very poor; he drew fifty loads of the soil of his garden and put it upon his poor land, which had a very good effect on that, but it ruined his garden.

The cheapest and best way that I can think of to shade land, is with clover. Seed your land thick with clover, and let it grow as large as possible without feeding it off; (for the more dense the shade, the sooner the land becomes rich;) let it remain shaded in this way for three years; then you may remove all the clover if you wish, and plow up the soil, and you will find it has become rich, although no manure has been drawn into the field. Let this much suffice at this time. He that rejects this, would reject more of the same doctrine.

ELIHU CROSS.

Hoosick, Renss. Co., N. Y.

NATIONAL AGRICULTURE.

The total value of the annual products of the soil of the United States is now about One Thousand Millions of Dollars; and no one who knows what Science has done for Agriculture will doubt that the same amount of labor which is now employed in producing this aggregate, might be so applied as to secure a total product thirty per cent. greater, or One Thousand Three Hundred Millions. But scientific, skilful, thorough Agriculture, always employs more than the shiftless, slouching sort too generally prevalent; and it is certainly within bounds to estimate that our Agriculture might be so improved as, by the help of additional labor now unemployed and unproductive, to give an additional product of fifty per cent., or Five Hundred Millions per annum—an achievement which would double the wealth of the country every eight or ten years. Whosoever will carefully review the Agriculture of a single State, or even an average County, in any part of the Union, and estimate how much its product might be enhanced by Irrigation, Manuring, Deep Plowing, Draining, &c., will perceive that our calculation is far within the truth.

But suppose that only half of it, or an addition

of Two Hundred and Fifty Millions per annum to our annual Agricultural product, is attainable, what an immense addition to our national wealth would thereby be insured! Four-fifths of this would probably be permanently added to the wealth of the country—that is, the farmer whose annual product should be swelled from \$1,000 to \$1,250, or from \$2,000 to \$2,500, would not eat or drink the surplus, but would invest the greater part of it in new buildings, fences, barns, implements, furniture, &c., &c., giving profitable employment to mechanics and laborers, and largely increasing the business of merchants and the income of professional men. Such an addition to the annual product of our Agriculture would increase the consumption of Manufactures, domestic and imported, in far greater ratio, since from the annual product of every farm the food of those making a living on it must first be taken for home use, affording no business or profit to any one else, leaving only the surplus to form the staple of trade; and an addition of twenty-five per cent. to the annual product of each farm would probably double the annual exchanges and general trade of the country.—*N. Y. Tribune.*

For the New England Farmer.

TYING UP CATTLE.

"I also will show mine opinion."—Job 32: 17.

MR. BROWN:—Dear Sir,—There are remarks from your pen, in the *Farmer* (Nov. 26th), in answer to J. DIXON's question, of Wakefield, R. I., as to the "best method of securing cattle in the barn," from which I beg leave to dissent.

That stanchions may secure cattle more safely, as far as getting loose is concerned, I do not doubt; but for practical use, i. e., for tying up oxen and cows, I dislike them very much.

To tie up oxen that work the live long day, and have them hang by the head all night, with scarce an inch play of room for turning to rest their aching necks, is bordering hard on cruelty, in my humble opinion. If the stanchion is put up exactly perpendicular, it is hard to lie down and get up in, and the position is hard to rest in. If the upper end stands towards the cattle, it is hard to feed in, as they can reach but a short distance for their food, unless they get down on their knees. I have seen cows, before they had got fairly accustomed to them, spring quite a number of times before they could get up. In the act of rising, they first start up on their knees, then spring forward to raise their hind parts, and in so doing their shoulders strike the stanchion, and the concussion is so great as to knock them back several times, before they can balance themselves in that confined position, so as to get up. When cattle are lying down, they hang with their horns against the stanchion, and their necks stretched to the utmost extent, and there they must remain, without the power to raise or lower the head.

Young cattle might be tied in stanchions, and stand with safety nearer together than when tied with ropes or chains, were it not for spoiling the shape of their horns, or at least badly injuring them. This with me is a serious objection; for who does not like to see a handsome pair of horns, on a cow even, and much more so on oxen?

As far as I am able to judge, chains fastened

around the neck with a spring hook or snap, are the easiest for the cattle, the safest, all things considered, and the most economical way of securing cattle in the barn. I have used them several years, and find them very convenient, and easy for cattle to repose in, and would advise any one who has stancheons now in use, to change them for chains the earliest opportunity.

As the swallow controversy appears to be agitated at times, I will add that I saw them quite plenty in Wilmington, Vt., the 30th of August.

Yours ever, with respect,

J. E. BLAKE.

Warwick, Me., Dec. 12, 1853.

REMARKS.—We agree with you that chains give the cattle more liberty when standing, and more ease when lying down, than they can have in stancheons. Yet we changed from chains to stancheons, and so have most of the farmers in this vicinity, thinking the latter the best, all things considered. Thank you for your article, and hope to hear from you again.

For the New England Farmer.

FEEDING STOCK.

MR. EDITOR:—The season has again arrived when stock must be housed and fed; and although the weather has been so mild that stock have found nearly, if not quite, all their living in the fields and pastures, up to within a short time, still, the amount of hay on hand is not large for the season. It therefore behooves every farmer to make the most economical disposition practicable, of hay and other fodder. Last year the supply of hay was still less than this, which induced me to adopt a system of feeding with a view to determine, if possible, the most economical disposition of fodder. Much has been written, and many valuable suggestions made through the *Farmer*, upon this topic. Yet many farmers still doubt whether any improvement has been made in this branch of their business. The method I adopted, and its results, I will endeavor to give for what they are worth.

The stock fed was eight cows and four oxen. Four of the cows gave milk all winter, and four came in, in February and March. I commenced my plan of feeding, December 1st. To each of my four milch cows, I gave nine pounds of common meadow hay, cut and wet with scalding water, to which was added two quarts of *fine feed*—and fed out as warm as might be night and morning. My dry cow I fed the same, minus one-half the *fine feed*. My oxen were fed the same (they were not worked any to speak of) only substituting cob meal for the *fine feed*, and part of the time substituting the same bulk of cut corn stocks instead of the meadow hay. At noon time I gave all round a small foddering of cut corn stover. Up to December first, I fed my milch cows on uncut English hay. Upon the warm, cut meadow hay and *fine feed*, my cows immediately increased their milk and kept through in first rate condition. My oxen gained flesh all winter, and at spring were fair beef.

The cows that came in in February and March were fed in the same manner, only substituting

half English hay. All the fodder was measured at every feeding through the winter. The small quantity fed at noon, I counted equal to two pounds of hay. At the latter end of March, my meadow hay was all exhausted, when I fed my milch cows wholly with the best of clover hay, cut and served up as before, reducing the quantity of *fine feed* one-half. My cows soon fell off in their milk.

It is generally understood, I believe, that the average of milch cows, require twenty-five pounds of English hay per day in order to keep in good condition. Taking this for granted, we have the following as the results of my experiment:—

Twenty-five pounds of English hay,—worth on an average \$13 per ton, or 6½ mills per pound equal to 6½ cents. Twenty pounds meadow hay, worth ordinarily \$6 per ton, or 3 mills per pound, equal to 6 cents—two quarts *fine feed*, worth forty cents per bushel, equal to five cents, making eleven cents, which subtracted from 16½ cents, leaves 5½ cents gain per day for each cow by the latter mode of feeding. It may be said, this gain is not sufficient to pay for the fuel to heat the water and the extra labor involved. If five cents per day for each cow was all the advantage to be found in this disposition of fodder, I grant it would “hardly pay,” but there are other and quite important gains—the most essential of which is an increased quantity of milk; and cattle fed in the way proposed, are kept in much better condition, and are therefore worth more in the spring; especially is this the case with cows, as it makes quite a difference in their value, whether they have got to appropriate the larger part of their summer feed to restore the flesh lost in winter, or whether the principal part of their food shall go to the production of milk. Again, with a little extra labor and a small outlay for grain, more stock can be better wintered. Stock, too, fed with a regular given quantity, (varying only to suit the emergencies of temperature) affords a satisfaction to the feeder in knowing when his stock is sufficiently fed, which every good farmer knows the worth of. There are other considerations in connexion with this subject, which I should like to advert to, but must defer to some future time.

T. A. S.

Westboro', Dec., 1853.

REMARKS.—We shall be very glad to hear from you often. The above is worthy of careful consideration.

HOW MUCH SUGAR DO WE EAT?

Last year there was consumed in this country about 750,000,000 lbs. of cane sugar, and 27,000,000 lbs. of maple sugar. This gives more than 24 pounds of cane sugar, and one pound of maple sugar to every man, woman and child. This does not include molasses or honey. If this sugar was put into barrels holding two hundred pounds, and each barrel occupied a space of three feet square only, it would require 336 acres of land for it to stand upon. The barrels, if placed in a row, would reach two hundred and twenty miles. If this sugar was put up in paper packages of five pounds each, it would require 146,400,000 sheets of wrapping paper, and “if only a yard of string was used to each package, there would be required

439,200,000 feet, or 83,600 miles of string—three times enough to go around the earth. If every retail clerk sold one hundred pounds of sugar each day, it would require nearly 25,000 clerks to sell it all in the year. If the dealers, wholesale and retail together, made a profit of only two cents a pound on this sugar, these profits alone would amount to nearly \$15,000,000. Can some of our young school friends tell us how much tea this would sweeten?—*American Agriculturist*.

EFFECT OF RAILROADS ON FARM PRODUCTS.

The annexed paragraphs are from an Address by GEORGE F. MAGOUN, Esq., delivered before the Des Moines Agricultural Society, in Iowa, as we find it published in the *Iowa Farmer*.

I naturally mention here, as a great aid to agriculture, improved roads. Plank and railroads are simply science applied to locomotion. Why is a farm on a railroad worth ten times as much as one 50 miles distant? Because its products can be carried swiftly and cheaply to a dozen of the best markets, while the latter is confined to one, and that a poor one.* Railroads have increased the amount of milk bought in Boston five-fold, and advanced pasture land 130 miles from New York 600 per cent. Property in 70 counties of Michigan has increased in value in a term of years \$55,000,000, but three-fourths of the increase has been in those 12 counties which are traversed by railroads. The Illinois Central will add \$40,000,000, the Burlington and Missouri R. R. will add \$15 or \$20,000,000 to the worth of the lands over which it passes. You can raise a better and surer fruit crop than the orchardists of western New York, but theirs is hurried by steam to the best markets in a few hours, and sold three or four times while you are getting yours to a poorer market. Chicago has been supplied with peaches, &c., this season from Alton; another season and our own county will pour into that market, and the noble orchards and nurseries which flank our beautiful Orchard City will rise to the value of a near neighborhood to the Garden City of the Lakes. Some of you will yet send off your apples, wheat, pork, potatoes, beef, mutton, to the Lake, and they pass from your doors by rail, and get your advanced price, and on your return pass an old foggy neighbor trundling his into town in his slow and ancient wagon.† Michigan farmers changed the balance of trade in favor of the State \$2,006,000 one year, by putting in more wheat; but without a quick run to market their excess of wheat would have rotted on their hands. Without railroads it would take 2 months, at \$50 or 60 a head to get beeves from the West to New York, and they would arrive unsaleable. Now they go in 7 days, in prime order, at a cost of \$10 or \$12, and at the rate of 22,000 a week: they go even from the Cherokee nation, west of Arkansas, marked with the hieroglyphics of the Indians who raised them. A Des Moines county farmer has proved it will pay here to raise stock for the shambles of the Atlantic cities. One advantage of railroads is the dressed meats that can be conveyed 1000 miles fresh, leaving hides, horns, offal, &c., behind for fertilizing and other purposes. Ohio dressed meats are now on the tables of New

York city. Another advantage will be that artificial fertilizers can be brought to us cheaply when we know how scientifically and profitably to use them. Railroads decrease the fluctuations of markets it; will not long be true that "ten wet days in England derange the exchanges of the world." They improve the outward aspect of the country—farms which are under the eye of passing thousands daily are neater, cleaner, and more tasteful—perhaps the occupants are also! I would not say how much our railroads, east and west, will make us prosper, but I will say that the men are now here in middle age, who, before their white heads are harvested by death, will see the fruit and grain and cattle of Southern Iowa and the Platte Valley become an important offset in New York to our purchases of English, French, and German goods, and in the Pacific ports to our importations of silks from India, and teas and porcelain from China and Japan.

* A ton of corn is estimated not to be worth hauling by a wagon when 170 miles from market; while at the same distance upon a railroad it would be worth \$22.10. A ton of wheat 330 miles from market is not worth the hauling by wagon, but by railroad it would be worth \$44.55.

† A single hotel in Chicago consumed daily 125 dozen eggs, 200 chickens, 68 bushels potatoes, 200 pounds butter; \$250 is paid monthly for milk, \$200 for bread, \$950 for meats, &c. Would our farmers have here such markets for their small produce and grain? Let them help the railroads, and the railroads will help them.

For the New England Farmer.

BEE CULTURE—NO. 1.

In this and subsequent communications which may be furnished, I propose to invite attention to a most interesting and profitable branch of rural industry. In so doing, I would not be understood as calling the attention of agriculturists alone to this subject. The impression has too long existed that the cultivation of the soil alone, or especially, is concerned in the management of the Honey Bee. There are very many individuals in every community as well situated, to say the least, as the husbandman, for successful prosecution of this enterprise. It is not an enterprise which requires great capital or great muscular energy or great extent of territory, as personal possessions. Any individual, however limited his resources, who has command of a little leisure, may share in the luxury and profits which result from the labors of the Honey Bee, and the amount of time required in the various operations of Bee-culture is much less than is generally supposed. There are ten months of the year during which Bees may be said to take care of themselves; that is, the attention which they need is very trifling. The aggregate degree of attention which a dozen swarms of Bees require during the year is less than a dozen house plants, or a single canary, bird would necessarily demand. The time is at hand when professional men and young persons, and even females and aged persons who are much at home, will be among our most successful Bee-keepers; to say nothing of the mechanic, who being much at home is peculiarly well situated for giving attention to this enterprise. When the subject shall be properly understood, especially when the lesson shall be effectually learned, which some have learned, that the Honey bee can be domesticated or rendered manageable, as truly and almost as safely as any other creature which is made for the service of man, or as

safely as the cow or the horse, Bee-culture will be greatly increased. Then it will be regarded in its true light as affording ample remuneration to those who enlist in it. The profits resulting from a judicious and proper system of Bee-culture may be safely estimated at from 100 to 500 per cent. per annum. In this statement I give merely the results of my own experience in Bee-keeping for a period of 12 years. There is no living creature which is subject to the control of man which pays so large a profit upon the capital invested and the time employed, as the Honey Bee, when a proper system of Bee-culture is adopted.

North Bridgewater, Mass.

For the New England Farmer.

FARM ACCOUNTS—RECLAIMING SWAMPS.

BY HENRY F. FRENCH.

What have rational men a right to expect from any department of labor which occupies a large portion of the community? Not, surely, that it should make every man rich, for wealth is comparative, and to be rich, signifies to have more than one's neighbors have, and in that view very few can be rich any where. The wealth which, in the city, is expended in gilded coaches, with footmen in livery, and in marble palaces, and gold and silver plate, or that which, in the country village, attempts to ape the follies of city life, is neither possible nor desirable, to the many.

A business which in any country affords to any large class, comfortable clothing, shelter, food, a good education, good society, religious culture, in a respectable position, and enough to guard against the common chances of accident and misfortune, and old age, without labor so severe as to impair the health of body or mind, is all that reasonable men can hope for. Neither the sudden acquisition of wealth, nor exemption from physical labor, is deemed desirable by us, for men in general, however pleasant it may seem to be made the exception one's self.

Farming is thought, by many, to be an unprofitable business, but I am not prepared to admit it to be so. It is difficult to decide whether it is so, or not, because with us it is not kept sufficiently distinct from other employments to enable us to learn its results. A farmer is generally a mechanic, or trader, or speculator of some kind. He deals in lumber, or cattle, or connects something else with farming.

If farmers could be induced to keep accurate accounts, either of particular operations, or of their whole farming business, we should have some means of forming correct opinions.

To illustrate my idea, and to show that reclaiming swamp lands for grass, if properly done, will pay, I send a condensed statement of my operations on a meadow in Exeter. The price paid for it was generally thought, at the time, to be

very high, and probably no looker-on, while my work proceeded, ever believed that it was other than a waste of money. I consulted a gentleman who had had charge of the land several years, and he said it had been examined by the best farmers, who had agreed that it was, the most of it, entirely worthless, and could never be made productive. On the very part pronounced the worst, I have cut three and a third tons of hay to the acre, at one cutting. The account shows that my expenditures and the interest on the cost, have exceeded \$800, since I bought it, in 1844, and yet that at the lowest price for hay, the lot has repaid it all and much more. The soil is part a clayey loam, and part black mud upon sand. My account was kept very exactly for my private use. The hope that farmers may be induced to keep such accounts, and that their faith in the gratitude of Mother Earth to her sons for their attention to her may be increased, has induced me to publish it. I do not regard the work as very well done, and I know that twenty tons of hay might have been profitably raised, instead of fifteen, upon the lot, had I treated the whole as I treated part. I have sold most of the hay yearly, so that the weight was ascertained, and not merely estimated.

DR.		THE COURT HOUSE MEADOW.	
1844.	To purchase money for 7 acres,		\$800.00
May.	plowing, &c., for potatoes, 97 rods,	\$9.14	
	12 bushels of seed potatoes,	8.00	
	11 loads manure and hauling,	26.93	
	ditching,	5.00	
	breaking up one acre, six yoke oxen,	14.50	55.58
Nov.	six months interest on cost,		19.17
1845.	To 5 casks of lime,	5.45	
	plowing, and cultivation of oats, and		
	potatoes,	27.93	
	seed potatoes,	1.80	
	making roads and planting potatoes,	11.48	
	fencing,	35.15	
	15 loads of manure,	30.00	
	labor of men and oxen, plowing, dig-		
	ging stumps, ditching, levelling,		
	spreading manure, and digging		
	potatoes,	79.30	
	grass seed,	2.25	195.46
	interest on balance of last year,		39.00
1846.	To grass seed,	2.27	
	1 bbl. of guano,	5.00	
	stable manure, hauling and composting,	34.42	
	labor of men and oxen plowing and lay-		
	ing land to grass,	14.70	46.90
	interest on balance of last year,		47.90
1847.	To manure, and hauling and composting,	32.50	
	labor of men and cattle, clearing up		
	the last piece,	52.50	
	ditching, &c.	8.00	
	grass seed and rye,	3.75	96.75
	interest on balance of last year,		47.00
1848.	To labor,		10.00
	interest on balance of last year,		46.00
1849.	To interest on balance of last year,		46.97
1850.	To interest on balance of last year,		43.00
1851.	To plowing and laying 1 acre to grass, and manure,	25.00	
	interest on balance of last year,		46.70
1852.	To 7 loads stable manure, hauling, com-		
	posting and spreading, for top		
	dressing,		19.25
	interest on balance of last year,		30.34
1853.	To interest on balance of last year,		16.71
		\$1420.24	
CR.		THE COURT HOUSE MEADOW.	
1844.	By 6 tons good hay standing,	32.00	
	meadow grass and second crop,	5.00	
	31 bushels potatoes,	16.20	54.20

1845.	By 7 tons of hay standing,	55,00	
	25 bushels of oats,	10,00	
	3 bushels of barley,	2,50	
	50 bushels potatoes,	15,00	
	wood,	1,00	84,50
1846.	By 10 tons of hay standing,	90,00	
	40 bushels potatoes, (on shares,)	20,00	110,00
1847.	By 12½ tons hay standing,	95,00	
	8 loads mud hauled,	4,00	99,00
1848.	By 15 tons of hay standing,	100,00	
	8 bushels of rye,	5,00	105,00
1849.	By 15 tons of hay standing,	105,00	
1850.	By 15 tons of hay standing,	90,00	
1851.	By 12 tons, (one acre sold off,)	75,00	
1852.	By 9 tons hay standing,	100,00	
1853.	By 9½ tons hay standing,	122,00	
	Balance, being the present cost of the lot, after paying all expenses, and 6 per cent. inter- est to November, 1853,	504,54	
		\$1400,24	

The result of the operation, *agriculturally* speaking, is, that the lot has paid all expenses of labor, fencing and manure, six per cent. interest annually, and \$134,46 more. But this is not all. More than half the lot was, when purchased, a worthless swamp, part filled with hassocks so that six yoke of oxen were required to plow it, and part covered with stumps, from which the wood had been recently cut. Now, the whole is a clean level mowing field, free from all obstructions except a few open ditches.

I think the fair value of such land is about \$200 an acre, near any good market, and to show that my opinion is not singular, it may be stated, that I have sold enough of the lot, since last haying time, at \$166,75 per acre, to bring me \$565. It adjoins no street, and was purchased merely for agricultural purposes, and was subject to an incumbrance for which I had received \$100. I also, in 1851, sold a little more than one acre, for \$340, a part of which perhaps was for *fancy*, though it is occupied only for farming.

Farmers can make money by reclaiming wet meadows, and the foregoing statement shows it. This land was no better than thousands of acres, which may be bought, in New England, at ten dollars an acre, yet I paid for it nearly a hundred, because it joined my garden where I then lived, and like all land owners, I like to buy all that joins my own. Farmers can attend to such work at times of leisure, for themselves and their cattle. I paid one dollar a day, for every day's work of a man or yoke of oxen. The account will show that the hay, which was of the first quality, of herds grass, was estimated at only from six to eight dollars per ton, until 1852, when it is set down at about nine. This is a lower price by far, than the average, in our region, in past years, prior to 1844. This year, I sold it from the field at sixteen dollars. Again, every cord of manure is charged at four dollars, whether purchased or hauled from my own barn, and this is twice the cost of making it in most localities. Then, as usual, I followed no beaten path, but tried all sorts of scien-

tific experiments in a small way, with lime and guano, and with barley and rye and oats, on places where it was said they would not grow. Everybody knows that these experiments are expensive to him who tries them, however they may help the cause. Indeed, I flatter myself, that with the added experience of ten years, I can manage wild lands to much better advantage than this lot was managed. I sold a part because my home is now on a new farm, where I am indulging my propensity to make rough places smooth, on land which cost me but twenty-five dollars an acre, so that my interest account will not consume the profits.

The three acres which I still hold of the "Court House Meadow," are worth more per acre than what I have sold.

Now, whether we regard the annual product of the land, or its selling value, it must appear that reclaiming swamps, is sometimes at least a profitable business, and that is the proposition which my statement and remarks are designed to illustrate.

H. F. F.

Essex, N. H., Dec. 29, 1853.

FARM FENCES.

This subject is an exceedingly important one, more so, we are confident, than many persons suppose it to be. Those who have been in the habit year after year, of mending up two or three miles of brush fence, about their pastures in the spring, and occasionally called away during haying and harvesting to "stop the gaps" made by hungry cattle, will be able to tell the cost and vexation of such insecure, perishable and expensive mode of fencing the farm.

We find in one of our exchanges some remarks on the subject which we copy freely, and for which we should be glad to give the proper credit if we knew from whence they came. The writer says—

"The best fence is a good stone wall; but if wood is used, skill and judgment are necessary in the selection of material and the mode of preparing it.

"The first item for consideration, in this matter, is *first cost*, and the second is *durability*.— Sometimes a third item may be important, to wit, the land used up by the fence. The second is the only one of these that can be estimated with any degree of accuracy by any general formula, and even this one is far from being uniform. But let us say a word of each.

"1. The stone wall. If material is at hand, or in the soil, and no especial obstacle or objection comes in to vary the result, our own opinion is decidedly in favor of stone fences. When properly laid, they outlast the builders. We know of fences of this kind, apparently as good as new, that have stood at least fifty years. These samples are chiefly of faced walls, with deep foundations, costing originally two or three times as much as an ordinary fence. But if they last as they now promise, the amount expended in their construction was a capital investment.

"It is well known that, in most parts of New England, stone wall is the prevailing style of fence, both on the highway and for dividing lots; and in all that region with which we are well acquainted, we have never known a farmer who did not prefer stone to any other material for this purpose.

"To secure durability, the foundation should be placed below the action of frost, and the whole should be laid by a skilful man, so as to secure to the greatest extent the aid of gravitation and friction in resisting all violence from either side. When thus laid, this fence is a good security against domestic animals of all sizes.

"But sometimes stones are scarce, and timber is very cheap, while labor may also be expensive. So it often is where pine barrens or other forests abound. There is also a great difference in the amount of defence, so to speak, which is required. Sometimes, it is chiefly, a mere landmark to point out a highway, and some of the oldest parts of New England furnish evidence that even this is unnecessary. The path beaten by the hoofs of horses or oxen, and worn by the friction of wheels, is the only index of the existence of a road, while nothing but a marked tree or a post or stone, indicate a plurality of owners of the soil. Such regions of country, however, furnish no occasions for the application of any general rules on this subject."

On the minds of those who have made and used different kinds of fences, there will be little or no doubt that where stones are near at hand, they make a cheaper fence than any other material; and yet there are many farmers in New England, where the fields, directly about the buildings, are enclosed with wooden fences which must be thoroughly made over, perhaps as often as every 10 or 15 years, and which must be repaired every year. This is done, too, to enclose fields abounding with rocks, over which the teams are stumbling and the plows and rakes are constantly being broken.

2. "As to wooden fences, cedar, no doubt, is the most durable of all woods, and where it is abundant, so as to be cheap, it should be preferred, especially for posts."

Chestnut posts, properly set, will last from 25 to 50 years; and as this wood is found in many locations where cedar does not grow, it may be considered as the most durable next to the cedar and locust.

"All woods are made more durable by being charred before they are set in the ground. Decay or decomposition is a chemical process which requires the presence of certain elements which, in charcoal, are essentially wanting. Charcoal, we suppose, is never chemically decomposed by exposure to the air or water. It may crumble. It may be attacked in certain situations by elements not generally encountered. It may absorb moisture, so as to be broken by frosts, and the like; but still charring well pays its way, when timbers are to be set in the ground. But they should not be charred so extensively as to weaken materially their strength."

Mistakes are often made in charring posts while in a green state. This is supposed to render the post less durable than though it were not charred at all. The wood being full of sap, the charring prevents it from passing off, and the centre of the post decays, while the outside shell remains sound; but the post is so weakened as to become useless.

"Many experiments go to prove that the smaller end of timber should be set downward. The rationale of this is rather hypothesis than physiological demonstration, since we know of nothing which has been actually discovered, which implies an upper or under side to the circulating vessels which compose the wood. The tubes and cells present similar appearances at each extremity, though their form or shape, tapering or otherwise, may have an important bearing on this phenomenon."

We consider the facts of more value to us at present than to understand their rationality—though to understand the causes of things is pleasant. The evidence which may be adduced to show that posts set with their small end down, last longer than they will with the large end down, is of too high a character to be lightly rejected. In Vol. 5, of the *Farmer*, page 208, Mr. J. DAVIS, of *East Bernard, Vi.*, states that in 1838 he took a stick 14 feet long and cut it in the middle, setting the butt of one up, and the other down, 13 feet apart. In five years, the one with the butt down rotted off, and the other stands sound yet. A writer in the *Hartford Times* and two writers in the *Germantown Telegraph*, made experiments and confirm the statement of Mr. Davis.

Mr. OTIS BRIGHAM, of *Waltham, Mass.*, page 256, same volume, says that the result of 40 years' experience with him, is, that common fence posts set in the ground green, and butt end downwards, will last, in a sandy loam, about 10 or 12 years. The same set in a like situation, inverted, will last 15 or 18 years.

"We might give an estimate of the cost of various styles of farm fence, as some of our contemporaries have done on kindred topics, but no one would perhaps be a safe basis of calculation, for one hundred miles square. Hence we leave the subject here, giving in a tabular form the items which each man must estimate for himself. These will vary, of course, with the season of the year, even on any given territory and for the same job. These items embrace the following:—

1. Cost of material, and of preparing it.
2. Cost of transporting to the spot.
3. Preparing the ground for the superstructure, whether a wall or posts and rails.
4. Cost and amount of labor to be employed.
5. Value of land affected by the fence, whether by occupying space or by causing shade.

"As to the age of timber and the season of the year when it should be cut, to secure the greatest durability,—young or at least sound timber should be selected, and the spring or early summer is probably the best time for cutting it. The latest growth will then have become somewhat hardened, and the condition of the sap at that

time is said to be favorable to their remaining sound for a long time. We do not attach much importance however to the hypothesis.

Mr. Emerson, in his very valuable report on the *Trees and Shrubs* of Massachusetts, seems to be of the opinion that autumn is the best time for cutting timber; this opinion was sustained by information from many valuable resources. We should think the spring, when the tree is full of sap would be the worst time for cutting.

"Wire fences are not generally approved, so far as our observation extends. When wires are stretched across a cheap frame, they may be very convenient for enclosing temporarily a small plot of ground, but for a permanent fence they will not pay. If they are used, they should be confined in their place by passing through substantial wooden posts, sufficiently near each other to attract the notice of animals. For one objection to them is, that cattle do not see them, and hence they are exposed to a degree of violence, even from quiet animals, which will severely try their strength. Live posts, earthen or burnt clay posts and the like, we regard as ingenious, rather than practically useful. They may sometimes answer well, but not as a general practice."

If the writer has had experience in the erection and use of wire fences, we should be surprised at his conclusions. We believe wire fences may be more cheaply constructed than any other, and will be found as durable and efficient as any, a stone wall excepted. The difficulty has been in straitening the wires. This process is simple and easy when one knows how. A small roller of wood, and two iron pins 18 inches in length each, will help to overcome every difficulty. The whole process is described in former numbers of the *Farmer*.

"A fence, the lower half of which is stone, and the upper half rails or wires, may serve a very good purpose, and where stone is scarce, it may be the best form of fence.

"But, whatever style is adopted, let the materials be of good quality, and the work be done skilfully. Sham fences are among the most expensive forms in which a lack of practical skill in farming operations is often exhibited.

HORSES FROZEN OR STARVED.

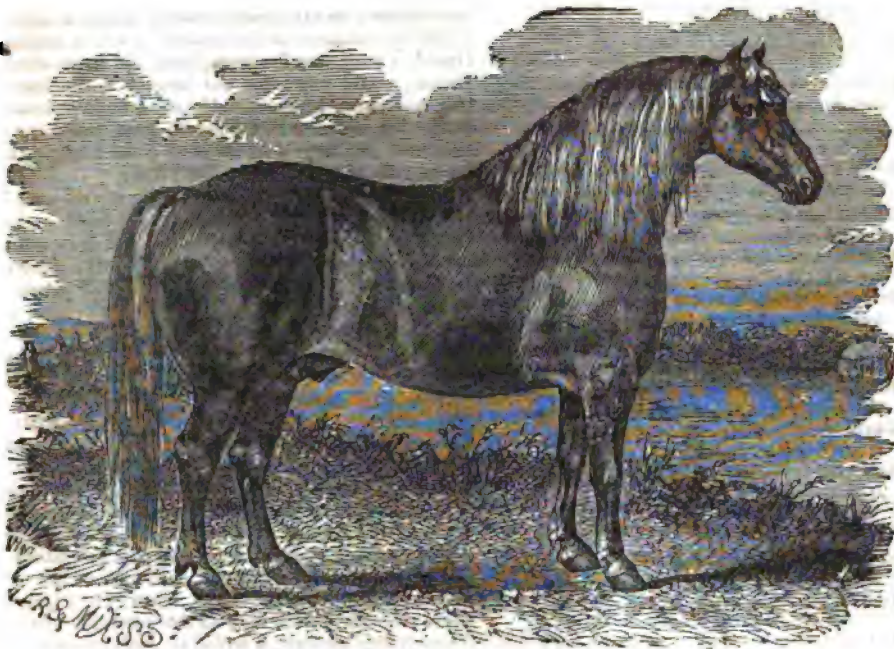
When the country was new, and rude farm-houses with rattling windows, uneven floors, warped clapboards and open fire-places were the best habitations that could be procured; when the drifting snow found its way through windows and doors even to the bed chamber, when the clothing of the people was scant and thin, it was hardly to be expected that horses should be privileged with warm stables or covered with thick blankets. Necessity knows few laws, and the poor man's horse suffers accordingly.

But times have changed. Thrifty people of New England are able to procure houses impervious to wind and snow, and clothing that makes our coldest days quite tolerable to healthy people. They possess also means of warming their houses, which makes them most delightful as the sweeping blasts of winter grow more intense.

In many, perhaps most cases, the condition of the horse and of his less intelligent neighbors, the cow and the ox, has gained equally. But the exceptions are far too numerous. Men who take no agricultural papers, who have no inborn taste for improvement, are frequently content to do as their fathers did. Hence, cattle exposed to the frost and storm of winter, with little shelter, perhaps with none; and horses are allowed—tell it not where slaves have as their only food a scanty allowance of corn bread!—to feast themselves on a northern hill-side in the open field, day and night upon a stock of withered grass! It would not pay to envy the feelings of men who can permit such practices. The sight may furnish an argument to show that self-interest is not sufficient to insure kind treatment to chattels of two or four feet, and that slave-holders are as kind-hearted as their northern brethren; but how can it minister to the comfort of a Christian man in a winter's night to reflect that his cattle or horses—however young they may be—are exposed to its rigors, how he can rest quietly or be cheerful at home or abroad, while his half-starved horses are shivering with cold, may well excite surprise in a truly benevolent mind. Among semi-barbarians, with their rough, coarse natures, among men who delight in war, it might be expected that their horses would be cruelly treated, as they are; but among Christians in New England such sights are not to be expected, and ought not to be witnessed. In some cities, perhaps in most, the law protects the horse from the open and excessive violence of his master, for the sight and sound are revolting to the finer feelings of humanity, and tend to debase and brutalize those who witness it, to say nothing of its effect on the passionate and cruel driver.

But against a process which kills domestic animals by inches—against a system of freezing and starvation which tortures the horse, and blunts the finer and nobler system of him who practices or allows it, the law can raise no barrier. It cannot protect the poor brutes, nor those whose proximity to such a person makes them involuntary witnesses of his cruel neglect. Much as their kind feelings are outraged by such conduct, they can do little more than remonstrance and protest against it. It may be possible, however, through *The Examiner* and other agricultural papers, to diffuse information respecting both the cruelty and the expensiveness of such an exposure and neglect of horses and cattle, till intelligent men would as soon ride "bareback," without bridles, build barns without roofs, and attempt to fatten hogs on dish-water, as to keep stock without providing warm, dry, well-ventilated stables, abundance of well cured hay, &c., or without covering the horses when it is necessary for them to stand long in the open air in a cold winter's day. Economy, good taste and good morals, unite in requiring the change of the old system for the new.—*Norwich (Ct.) Examiner*.

FAT CATTLE.—Seth Bush, Esq., of this town, weighed, on Monday last, six pairs of oxen which "talked up" as follows:—1st pair 4800; 2d do. 4200; 3d do. 4100 4th do. 4090; 5th do. 3810; 6th do. 3600. Such beef would be a rare commodity any where else, but here our farmers make nothing of "building" cattle a little less in size than the ancient Behemoth.—*Westfield New Letter*.



A MODERN SUFFOLK STALLION.

The best breed of horses for the farm and the road—for cultivating the soil and taking its products to market—for general farm purposes—is a subject of great interest to very many of our readers. For the carriage and light work, this country can furnish as good and as fast horses as any other, but for the heavy work on a farm—its breaking up and deep plowing—our common horses lack the strength and bottom, there an essential requisite. This subject has of late attracted considerable attention, and a writer in a recent number of the *Wool Grower and Stock Register* has an extended article on Farm horses, their points, &c., from which we extract the following on one of the favorite breeds of British agriculturists.—*Rural New-Yorker*.

"In England the *Suffolk* is considered the best breed of horses, adapted for all purposes of modern agriculture. At the recent annual show of the Royal Agricultural Society, this breed carried off all the prizes, as it did the highest one at the great show at Windsor in 1851.

The modern *Suffolk* horse still retains many of the best points of the celebrated 'Suffolk Punch,' but his height and size have been increased by admixture with the *Norman* and *Yorkshire* breeds. He is higher in the withers than the *Punch*—it is doubtful if this is an improvement—legs lighter and flatter the sides more rounded, and altogether a more beautiful and symmetrical animal. The

horse of Mr. CATLIN, (portrayed at the head of this article,) is a good representation of the breed, and is doubtless the best farm horse in great Britain, as to him was awarded the first prize of \$150, at the great Windsor Show in 1851. These horses are by no means plentiful, and if well bred, command high prices. There are, however, in England, as in this country, any quantity of horses that can be bought cheap—and are dear at any price."

For the *New England Farmer*.

TO STRAIGHTEN STEERS' HORNS.

FRIEND BROWN:—In reply to a subscriber inquiring how to straighten steers' horns, I give my method. Steam the horn you wish to straighten by binding on a boiled potato, hot, then take a sharp rasp and rasp the horn on the side you wish to straighten; then scrape smooth and thin with a piece of glass, and put on some thin oil, well rubbed in a few times, for three or four weeks.

I would like to inquire through the *Farmer*, how to kill white daisys, and what way house ashes may be used on a farm to the best advantage.

T. C. BRANCH.

Cornwall, Vt., 1853.

REMARKS.—You will find in another part of this number some remarks on the white daisy. Wood ashes is valuable on most crops, perhaps all. We have found great benefit to the corn crop by applying a gill to each hill, placed near the young plants just before the first hoeing. They

are excellent spread broadcast on grass land; so are they about apple trees, dug into the soil, and on any of the garden crops.

THE GOOD OLD PLOW.

Let them sing who may of the battle fray,
And the deeds that have long since past,
Let them chant in praise of the far whose days
Are spent on the ocean vast.
I would render to these all the worship you please.
I would honor them even now;
But I'd give far more from my heart's full store,
To the cause of the Good Old Plow.

Let them laud the notes that in music float,
Through the bright and glittering halls;
While the amorous twirl of the hair's bright curl,
Round the shoulder of beauty falls.
But dearer to me is the song from the tree,
And the rich and blossoming bough.
O, these are the sweets which the rustic greets
As he follows the Good Old Plow.

Full many there be that daily we see,
With a selfish and hollow pride,
Who the plowman's lot, in his humble cot,
With a scornful look deride;
But I'd rather take a hearty shake,
From his hand, than to wealth I bow;
For the honest clasp of his hand's rough grasp,
Has stood by the Good Old Plow.

All honor be then to these gray old men,
When at last they are bowed with toil;
Their warfare then o'er, they battle no more,
For they've conquered the stubborn soil;
And the chaplet each wears, is his silver hairs;
And ne'er shall the victor's brow,
With a laurel crown, to the grave go down
Like the sons of the Good Old Plow.

Genesee Farmer.

MR. PROCTOR'S ADDRESS.

We are under obligations to BROOKS SHATTUCK, Esq., President of the Hillsborough County, N. H., Agricultural Society, for a copy of Mr. Proctor's Address, delivered before that Society in September. We listened to the Address with much gratification at that time, and spoke of it through these columns, as one that would be remembered. We do not understand Mr. P. as objecting to the introduction of foreign stock, or of free experiments in crossing; but rather, that our native cattle have not had a fair trial with others—no one family having been kept pure, and receiving that careful attention in feeding which the Short Horns, Devons, Ayrshires and others have had.

Two or three paragraphs are given from it below, with the hope of referring to it again.

WORKING OXEN.—I have witnessed not less than forty plowing matches, with an average of twenty ox-teams in each; but I do not remember a single instance where any superiority of power was manifested in their operations, by the imported over the native cattle. If they possess this power, would it not have been made apparent under such circumstances? I have known attempts to exclude expert plowmen from holding the plow, but I never knew any attempt to exclude expert oxen from drawing it; and if I had, I query, whether the slow moulded Durhams would have been thus pri-

villeged. I have seen the massive Durhams, the descendants of the far famed Denton of Northborough, moving in the plowing field side by side with the snug built, bright-eyed native ox from Sutton—a little more than half as large—and was constrained to say, that the work was quite as well done by the latter as the former. If you were about to select your man for promptness and expertness of labor, would you take the largest to be found? By no means. I have seen the snug built little man, weighing not over 160 pounds, who would lay on his back the largest lubber that came along. The same rule applies to oxen for labor.

MILCH COWS.—Our milch cows, for the making of butter and cheese, the primary object for which they are kept on most farms, are certainly not inferior to any others. In expressing this opinion, I take into view their feed as well as their products. I have seen many cows within thirty years, and the very best I have seen have been native. Such was the opinion of Timothy Pickering and John Lowell, gentlemen of discrimination, observation and high character for intelligence and truth as any others. Not speculators in stock—with no prejudices to conquer, or preferences to reward. That I may not do injustice to these venerable pioneers in improvements, who did more in Massachusetts to awaken public attention to the interests of the farmer than all others, I beg leave to quote a single sentence from a Report submitted by Mr. Lowell, on milch cows, exhibited at the show in Brighton, October, 1822, when Mr. Pickering was associated with him on the committee; and I myself was present, a stripling looking on. Says he:

"Although the milch cows of Great Britain and the Netherlands are in general far superior to our own, I have never seen an imported cow with equal merit with some of our own, that have been offered. So fully am I convinced of this truth, as well as that our country possesses a very considerable number of these fine cows, that I am persuaded if Great Britain or the Netherlands, or all Europe combined, were to send us *ten cows*, selected each of the best quality there to be found, New England alone would furnish *twenty*, that would equal them in the quantity of *milk, butter and cheese*, they would respectively produce."

OBSTACLES IN THE WAY.—Perhaps there are no greater obstacles in the way of the advance of the farmer than what arises from the mistaken apprehension of the superiority of the employment. There are many young men, (of which I confess myself to have been one,) who foolishly seek what they imagine to be a more elevated and dignified pursuit than the tillage of the ground. They wander from the home of their birth, where contented labor would have insured peace and prosperity, in pursuit of a phantom of the imagination, dazzling to the eye, but not easily grasped by the hand,—and when the hand is supposed to be upon it, it not unfrequently is found *not to be there*. Many a man, after struggling in vain, until he has no power to struggle longer, looks back upon the less aspiring companions of his youth, comfortably provided on the farms secured by their well directed industry, and bemoans his own erratic judgment.

So many instances of the kind have occurred, that I consider the principle as well established as any other, in political economy. Often, by grasp-

ing at too much, the whole is lost, as we learn from the dog in the fable. The power of the cultivator is increased by concentrating his operations. How otherwise can it be explained, that the cultivators of vegetables, in the vicinity of dense populations, pay, and can afford to pay, three, four, and five times as much for lands, as those of like quality can be procured for, a few miles distant? A great change in this respect has taken place on the farms with which I was best acquainted when young: The carrot, the beet, the turnip, the onion, and various kinds of herbs, now engross the better part of the cultivated acres. In fact, other crops are now looked upon as preparatory and subsidiary to these, because these are the most reliable products of the farm. It is not over-stating to say, that the net increase per acre, after a liberal allowance for all contingencies, has been *three-fold* by the change. Where *twenty* dollars per acre was considered a good return from ordinary farm products, *sixty* or more is now realized. And in instances, not a few, double this sum.

For the New England Farmer.

EXHAUSTED LANDS.

BY A. G. COMINGS.

The sterility of New England soils is proverbial. From every quarter we hear the cry, "Our lands are exhausted." The subject becomes of great importance, when we know that exhaustion has taken place to so great an extent as is indicated in our soils.

We may rush to a hasty conclusion as to what constitutes the exhaustion of our soils, and spend thousands of dollars to effect a remedy, when the whole amount may be little or no better than thrown away. To avoid this, who will not see the importance of understanding wherein the soil is exhausted? It will be said by one that the soil is exhausted of its potash; by another, that the soil has not enough of the constituents of common salt; by many, that there is a great want of lime, or phosphate of lime; and another still may tell us that it consists in something else.

The chemists of our time offer to settle the question for us, by analysis of soils. If this would meet the difficulties of the case in theory, it never will in practice. Our uneven lands are so broken and varied that almost every acre, (I might have said almost every square rod,) of our ground would need a chemical examination. If examinations by the acre might be sufficient, (which certainly would not be,) even then the cost of the examination would be more than the worth of the land after it was examined, in most cases. The farmers of New England will never pay the expense of a chemical examination of their soils, to any great extent; and to expect a remedy from that quarter would be little better than it would for travellers to expect ships and steamboats to fly in the air in time to come. It is wholly out of the question. There are and will be instances in which analysis of soil will be of the first consequence to the farmer. But there are and always will be very few in New England. The thing is entirely out of the question, for the farmers of N. E. to get their worn out lands analyzed.

The worn-out or exhausted lands of New England, or those which are often spoken of as such, are very generally supposed to be exhausted most in the

mineral or inorganic substances required by growing plants. Is this idea correct? Is it not, after all, the real truth of the matter, that the exhaustion of our soils consists much more in the organic substances of plants? I think it is so, and that the remedy is perfectly within the reach of our farmers, in ninety-nine cases out of every hundred.

(a.)

There are in New Hampshire, I believe, thousands of acres which are regarded as pretty much worn out, and which are sufficiently supplied with the mineral or inorganic elements of plants to endure cropping for hundreds of years, without those substances being exhausted. At the same time there is not a sufficient supply of the organic constituents of plants to mature one good crop, in the same soil. I can look in every direction over hundreds of acres, where the land presents a like surface, having an active surface-soil of comparative little thickness, in which the amount of old vegetable matter is not sufficient, if it could all be prepared at once as food for plants, to sustain one half a decent crop of corn, potatoes or oats. At the same time, the earthy or inorganic elements of plants, those which would remain after the burning of a plant, as ashes, are scattered freely through the entire subsoil, to any depth to which we may descend, even if it were a thousand feet. While the thin, surface soil may be in some measure exhausted of the mineral constituents of plants, (and still more of the organic,) every part of the subsoil is as full of those mineral or earthy constituents as an equal amount of the surface soil was in its original state. Were it not that those substances in the subsoil are combined, frequently, if not generally, with substances which are injurious to vegetable growth, and which must be overcome by the well-directed efforts of the farmer before the subsoil will become an active agent of good to vegetation, there would be no question but the deepest plowing would in all cases secure best results. Where the subsoil is possessed of injurious substances, it must be brought up in smaller quantities, or the land must lie fallow for a length of time; unless some extraordinary application of neutralizing agents is to be made.

Upon land where we are told that the phosphate of lime is quite exhausted, we see trees growing rapidly, of the very kinds which show the presence of an abundant supply in the soil. The thin, surface soil is perhaps exhausted of phosphoric acid and lime; but the kind of trees which grow there may tell to a certainty that there is still an abundant supply.

Many are led to suppose that the potash is all taken out of their soil, and they are procuring large quantities of hard wood ashes to supply the lack, while in much of the same land the amount of potash which is contained is perfectly measureless and inexhaustable. The soil needs working and managing in a proper manner to bring it into use, because it is now combined with other substances, forming coarse particles or lumps which growing plants cannot use. (b.)

To prepare the abundant mass of earthy or mineral substances of the subsoil for use, certain substances from among the organic constituents of plants, or those which are thrown into the air by burning, are necessary. These being exhausted, there is a lack of power to assimilate and prepare the inorganic substances or elements for use.

The application of hard wood ashes, in liberal quantities, to such land as I have spoken of, may cause them to produce a more ready and rapid growth of whatever is to be raised, by decomposing the small amount of vegetable matter in the soil; and yet, while it appears to benefit it very much, it may be hurrying it to a hopeless sterility.

The exhaustion is chiefly in the organic substances required by the growing plant. (There are lands which form an exception, it is readily admitted.) To supply what is needed, at the cheapest rate, and by the readiest means, is, I think, the greatest of all questions now before the farmers of New England. It will cause a faithful and careful estimate to be put upon deep plowing, thoroughly working the soil, the use of green crops, meadow muck, guano, urine, &c. A. G. C.

Mason, N. H.

REMARKS.—(a.) We beg leave to call especial attention to this part of our correspondent's proposition. He does *not* believe that inorganic manures are useless, but that they are not absolutely essential on most of our farms in greater quantity. If the idea should become general that a free application of salt-petre, lime, plaster, superphosphates, guano, &c., were *indispensable*, it would do more to discourage the farmer and check agricultural progress, than any other doctrine within our knowledge. No. The farmer, in most cases, has the elements of fertility under his own control,—*first* in the excretions of his stock carefully preserved, and *secondly*, in restoring to his fields the organic matter which for untold ages has been washed from them into the valleys at their base.

(b.) In the cultivation of most crops the soil is not made sufficiently fine before planting or sowing, and the hoed crops are not stirred often enough afterwards. The reason of this is, that we do not yet clearly see where a large portion of the fertilizers come from that perfect our crops. When we become convinced that they are supplied by the *atmosphere* that surrounds them and ourselves, then we shall begin to inquire, how they can be arrested, and converted into our grain, grass, and fruit crops. We cannot, here, go into details on this point, but we beg him who doubts to look at the matter candidly for a moment.

In riding a *single hour* on an engine with the engineer, he sees, with his own eyes, that a *cord* of pitch pine wood is used, together, as he is told, with several hundred gallons of water. He looks into the pan under his feet and finds but a mere handful of ashes there, and wonders what could have become of *eight feet* of wood and some *hundreds* gallons of water in less than *sixty minutes*! He has seen dense columns of smoke issuing from the murky throat of the machine, and streams of hissing vapor from the steam-whistle—the first of which would have suffocated him immediately, and the latter proved fatal equally as quick; and yet, in this wonderful alembic, the *Atmosphere*, these substances are so suddenly resolved into their

original elements and compounds, that his friend, standing on a car a little behind him, breathes them with perfect impunity.

The atmosphere consists of a mixture of oxygen and nitrogen gases, a little carbonic acid and watery vapor; but it contains besides many other substances which exercise an important influence upon vegetable life. Volatile matter constantly arises from decaying animal and vegetable substances, from the meadows, manufactories, sewers, and every substance that is perishing. The sea constantly sends up a portion of its common salt, and where chemical operations are carried on, vast quantities of gases are constantly carried into the air. What becomes of them? If they are not returned to the plants, where do they go? Why does not the earth diminish in bulk where so much is taken away, if nothing is returned? But if they are returned, *in what condition must the soil be, in order the more freely to receive them?* We answer, in a *light, fine and porous* state, and this brings us back to the point from whence we started, where we will at present leave the subject for the reflection of the reader himself.

STEAM FARMING.

It is pleasant to see that this wonder-working power can bring landlords and mill-owners into social intercourse, honorable to both sides; it is not less remarkable that it bids fair, ere long, to merge the two great classes in the one class of manufacture. In one aspect it is exalting the present manufacturers to a level with the lords of the soil—in the other it is converting the landlords themselves into master manufacturers, and their farms into manufactories. The day after Mr. Salt's princely *fete*, Mr. Mechi was the invited guest of the Herts Agricultural Association. An earl, and a baron, and so forth, were assembled, in expectation of the speech of the day from a London tradesman; one who had made an irruption from the counter (with wealth amassed there), into the broad acres of the territorial aristocracy. Nor did the guest disappoint the nobility and squires who had invited him evidently to stimulate their own tenants. He dealt out wholesome suggestions to landlords with large estates, complaining of want of capital to improve; honestly advising them to sell part of their land, and improve the rest with the money. He rebuked tenants, who, clinging to the old ways, grudged the landlord a fair interest for the money he had laid out; but the burden of his speech was steam.

The amount of steam power in any agricultural district he took as the test of its condition. People thought him crazy when he first put up a steam engine; but now, two makers in the village had more than they could do to supply the neighborhood fast enough. Lincolnshire and Norfolk farmers have, some of them, one, two, and even three engines on a farm! Herts had but made a beginning; he was sure they would soon get deeper into it. But the grand agricultural achievement of steam is yet to come. Its advent is nigh. Mr. Mechi is now building the engine, at a cost of two hundred pounds, which is to plow the land and

do almost everything besides. A Canadian engineer, neglected in his own province, is working at Tiptree, under Mr. Mechi's patronage; soon the implement is to be ready which is to revolutionize British agriculture, to enable farmers to plow twelve inches deep instead of five inches, and to benefit agriculture about ten millions of pounds per annum! What are all the budgets of rival chancellors of the exchequer to this? His guests, the gentlemen of the top boots and gaiters at least, were withheld, either by utter blank astonishment, or by not having heard so much Latin from exclaiming *Credat Judæus Apella!* However, the sober truth remains, that we have now farms in which steam does all the fixed machinery work, that such farms are increasing in number, and that machinery of every kind is so rapidly extending that the farm is fast assimilating to the manufactory; and that the farmer and his laborers bid fair, in another generation, to equal in intelligence their brethren of the towns.—*Eng. paper.*

A GOOD HIT.

The *Pennsylvania Farm Journal*, published at West Chester, gives an excellent contrast between the thrifty and thrift-less farmer, in two engravings, opposite each other. The picture on the left shows the nice and convenient farm buildings, tastefully set off with shrubbery, shade trees, fine fences, good gardens and roads, and all enlivened by the most active industry of men and teams in the fields. On the right, not a shrub or shade tree is to be seen near the buildings. The roof of the barn is in waves, like a troubled sea; the weathercock is keeled over, while the doors look as though they had just come out of a dreadful spree and didn't know which way to lean. Broken slabs, old wheels, tin pots and cast off boots and used up crockery are scattered in the door-yard. Emaciated cows are mumbling away at the hay stacks, while lank and haggard oxen are drinking at a trough at the end of the house farthest from the barn, and lean horses are collecting the scattering blades of grass on the dreary looking pasture in the rear. The sheep, with their backs humped up, might stand "all fours" in a two quart measure. The foreground is embellished with the skeletons of dead cows, pigs and poultry. The hogs have just broken through the rickety fence, which Tom is patching up, while Sam, club in hand, hangs on to the tail of a long-nosed, lop-eared, race-hog, which he is belaboring with unmerciful blows. The bull-dog, Grip, has another by the ear, whose direful squallings set the hens, turkeys and geese into a perfect flutter.

To complete the picture, the lout-proprietor sits in the piazza, perched on the hind legs of his chair, contemplating the scene before him, and complacently listening to the rebukes of a woman who has popped her head out of a broken window, just in time to see the hogs destroy what few garden vegetables were left, from former depredations.

Your hit, Mr. *Journal*, is admirable—it is de-

cidedly historical, too. So were Hogarth's pictures, and told their story to the public with as much directness and force as Junius or the *Dunciad*, and were felt as keenly as any of the stinging sarcasm of either.

Hogarth would have found plenty of subject matter in your picture on the right for one step in the *Rake's Progress*. Pass it along.

STABLING AND FEEDING COWS IN WINTER.

Can you inform me through the columns of the *Country Gentleman* how I can prevent my cows from lying in their manure when in the stable? I have tried every way that I can think of, but all to no purpose—for every morning their udders are so filthy that it would take five or ten minutes and one gallon of water to wash them clean. My stable floor is good, slopes back three inches in ten feet. I clean it out every day and cover over with clean straw. Unless I can find some remedy I shall have to abandon stabling altogether.

Should cows be fed before or after milking, or does it make any difference in product of milk or butter?

Ought cows to be subjected to long stripping, or not? I have a heifer with her first calf, that is disposed to strip a long time, and I do not wish to spend the time unless the product of milk is increased thereby.

Also, which is the best straw and hay cutter for general use with which you are acquainted; what is the price, and where it can be obtained? Or will it pay at all to cut feed for two or three cows, when you have plenty of work to occupy your whole time at 75 cents per day, and can purchase hay at seven or eight dollars per ton?

Please give me all the information you can on the above subjects, which will be thankfully received by

A SUBSCRIBER.

Connellsville, Pa.

To keep cows clean during the period of their stabling, we have found it absolutely necessary to clean the stables at least twice a day, and more especially in the evening just before spreading their beds of straw for the night. They should also have room enough to select a clean place to lie in, and be tied so as to lie down and rise again without the least inconvenience. With these precautions we have no difficulty in keeping them clean.

The udder of some cows is more easily drained than of others. Where necessary for completely emptying the udder, long-stripping must not be neglected. Cows which are not milked clean, diminish in quantity, and soon "dry up." The process of stripping may possibly be continued so long as to be a waste of time, but we have never known an occurrence of this sort, for not one milker in twenty does the work thoroughly enough, especially towards the close of the year, when the supplies are given down more slowly.

A cheap and perfect straw-cutter has not yet been made. Those manufactured by Emery, Ruggles, and others, consist of a cylinder of knives cutting on a roller of green hide, and cut with great ease and rapidity, and do not easily get out of order. They have but one serious defect—they will not cut shorter than an inch, which will do

tolerably well for hay and straw, but not for corn-stalks. The price is six or seven dollars, and upwards. The cheaper ones do not cut so fast nor so short as those of higher price and more numerous furnished with knives. Sanford's straw-cutter, sold, if we mistake not, by Rapalje & Co., of Rochester, costs about 12 dollars, and consists of two cylinders of knives working into each other like the teeth of two cog-wheels. It answers well for corn-stalks, crushing and cutting at one operation, but from some cause unknown to us, does not appear to have been extensively used. For cutting very short, we have not yet found a machine that is at once reasonably cheap, efficient, and durable for long use.

Cutting fodder has several advantages. Straw and hay may be intermixed and both eaten together, and mastication rendered more complete and perfect; corn-stalks, *if cut finely enough*, will be more thoroughly eaten, and the manure will be fine, instead of coarse, long, and unfit to apply till thoroughly rotted. We have no accurate experiments to show the precise amount saved by cutting; an acquaintance informs us he finds the yearly saving in keeping a single horse, to be twenty dollars, out of fifty, formerly required; but we think his estimate too high. The public very much needs more accurate experiments on this subject.—*Country Gentleman*.

MILCH COWS—AN ANSWER.

In the "Newspaper," of Nov. 16th, I find an article headed "Milch Cows." W. R. wishes to know how many milch cows can be well kept on twenty or twenty-five acres of average grass, exclusive of winter feeding! Also, the average quantity of butter that can be made from said cows—the number of hogs or pigs that may be kept from such a dairy—the best mode of wintering cows, and the management of corn-fodder! In answer, I would say, that from fifteen to eighteen cows could be well kept on twenty or twenty-five acres of grass, on good soil. Cows will produce from one hundred and fifty to two hundred pounds of butter per annum each, which will average, say one hundred and seventy pounds each, for fifteen cows, making a total of two thousand five hundred and fifty pounds per annum. Two cows will keep three hogs well. Some say two pigs to one cow is a fair proportion, but we will say three pigs to two cows, to insure good feeding that will make twenty-three pigs to fifteen cows. Cows should have a warm stable, well ventilated, so as to have a good supply of fresh air; during the day they should be provided with a yard, having a southern exposure, for cows are fond of the sun in the winter; the yard should be provided with shelter, to protect the cows from cold winds and inclement weather. At night they should be stabled, and fed with well cured hay. A little bran is of great benefit to a milch cow, even six quarts a day will make a great improvement in her milking, to say nothing of herself. Cows should be fed or foddered three times a day, and have a plentiful supply of good food, and fresh water to drink whenever they wish. As to corn-fodder, the best I am aware of is, to cut it in pieces of from eight to twelve inches in length, and steam and scald it, first adding a little salt to the mess; by so doing the cows

will eat it up very eagerly, and there will be no long corn-stalks in your manure. Corn-fodder served after this manner is as good as hay for milch cows.—*Phil. Dollar Newspaper*.

THE LITERATURE OF AGRICULTURE.

Our own estimate of books which expect to make farmers, where there has been no practice or apprenticeship, is not higher than our estimate of books which propose to make Christians by the same short process. We remember, as if it were yesterday, how blankly we looked in each other's faces, when, on a fine spring morning, having bought our radish-seed, we prepared to plant it, and consulted the "Dictionary of Gardening,"—and read together, "The well known manner in which this vegetable is cultivated renders any observations thereon unnecessary."

We relate this experience as a hint to preachers, as to what is necessary and unnecessary in discourse.

It is at the same time an illustration of the reason why no book can make a farmer. We have, now, two books before us,—which show, in wholly different ways, how wide is the range of thought which belongs to the great science of farming,—and what constant stimulus to intellectual effort that man has, who would diligently apply himself to explore it. It is no little satisfaction to see how many men set themselves to making two blades of grass grow where there has been but one.

The first of these two books is the Patent-Office's Agricultural Report for 1852. It was made up under some earlier administration, and only concluded by Mr. Hodges, who seems to be well aware of its deficiencies. To speak of the first of these first, we would suggest that it ought to have been completed before the 28th of February, 1853, and then ought to have been printed before now. Phillips & Sampson, Crosby, Nichols & Co., or any other firm of publishers who are awake, would feel disgraced if an octavo volume like this cost them six or seven months time in the printing. It should have been written, printed and distributed, before the 1st of March.

Within its covers there is, as usual, an immense range of correspondence, with no index,—no running titles,—nor other clue to its contents. There is, however, here a great deal of really valuable information, mixed with the trash to be expected. It is a singular merit to be claimed by hardly any other book, that the climate, soil and needs of almost every State are specifically alluded to in these different communications. And we do not doubt that careful readers will draw information from one part of the Union, into such form as shall suit their purposes in another. The book, as it stands, is a sort of compost heap just made. The result of it will undoubtedly be good harvests. But it is of no great use just as it is,—it needs a good deal of fermentation, and careful spreading, harrowing over, and working in with other soil.

Our other book, alluded to above, is a curious illustration of the tribute of one art to another, of the machine-shop to the farm. We have, long since, made a walk through Ruggles, Nourse & Mason's Agricultural Warehouse, the amusement and instruction of a leisure hour. We have here, in a hundred and fifty pages, the catalogue

of tools and machines, made by them, for farmers, —in number and variety to stagger the belief or understanding of any but a connoisseur. Let no one suppose that because he knows what a hoe, and rake, and spade, and plow and harrow are, he has exhausted even the types of agricultural mechanism. Here are lactometers; the English talacre; post augers; meat cutters and sausage fillers. Here is the science of plowing very well laid out, and illustrated by the several forms of plows which these manufacturers have devised for its requisitions. Plows for all soils,—all slopes of surface, and even left-hand plows for the left-handed German and Dutch farmers of the West. There are nearly a hundred plows in this list, of different varieties.

No one can leave such a book, without abandoning forever the notion that one of the great subdivisions of labor is more useful than another. Each is lost without the other. The farmer cannot say to the mechanic, "I have no need of thee"—more than the foot to the hand, or the ear to the eye.—*Christian Register*.

UNITED STATES AGRICULTURAL SOCIETY.

The Second Annual Meeting of the UNITED STATES AGRICULTURAL SOCIETY, will be held at Washington D. C., on Wednesday, February 22d, 1854.

Among the objects of the Association are the following:—

The acquisition and dissemination of the best experience in the Science of Agriculture:—

The union of the men who desire to advance to its legitimate rank, this most important of all human pursuits;—and

The increase and extension throughout our country of a more cordial spirit of intercourse between the friends of Agriculture, by whose countenance and co-operation this Society shall be elevated to a position of honor and usefulness worthy of its national character.

Business of importance will come before the meeting. A new election of officers is to be made, and in which every State and Territory is to be represented.

Applications will be laid before the Society for the holding of National Exhibitions in different parts of the Union.

Delegations are respectfully solicited from all the Agricultural Societies in the country, and the attendance of all Agriculturists, who may find it convenient to honor the occasion with their presence.

MARSHALL P. WILDER, *President*.

WILLIAM S. KING, *Rec. Secretary*.

January, 1854.

REMARKS.—We have attended the two annual meetings of this Society at Washington, and found great pleasure in meeting so many earnest friends of the cause from various parts of the Union. We hope to meet them again, with numbers of our citizens, together with delegates from every State in the Union. It is an occasion of interest and importance, and those who have never visited the federal city will find it a most favorable time to be there during the sittings of the National Society.

For the New England Farmer.

WHAT A GARDEN SHOULD BE!

Few words awaken a greater variety of pleasing remembrances and ideas than *Garden*; and its utterance strikes a chord, that, swelling and vibrating, carries us back to the birth-place of man, and thence, lingering in the valleys of India, climbing the mountains of Europe, nestling among the glades and parks of England comes to us fraught with mysterious meaning, and manifests even here, in bare, bleak, rocky New England, how endeared are its associations and memories to the refined mind.

Is it wonderful that every mind should feel it a part of its own nature to love the garden, the birth-place of man, and his resort ever, for repose, pleasure, and instruction? Would any philosophy be far wrong that, starting with the assumption, that God manifestly interferes in the special actions of his children, should assert the first employment of man, and his natural and congenial one, was gardening! Were it desirable to prove that division of labor constitutes the welfare of communities, that sin of Adam, which drove him from the garden of Eden, would seem an intentional interference of God, to prevent all the dwellers on the earth being tillers of the soil. When driven thence, and forced to seek their support, some of his descendants, too lazy to cultivate the earth, would turn to less laborious occupations, and try to substitute the work of the wits for that of the hands.

It is worthy of notice, that amongst the more simple of the civilized nations, all refinement sought its expression in some connection with the garden. If we instance the Greeks, we cannot fail to remember that Plato and Aristotle taught in gardens, and that Pliny and Horace were devotees to its culture and beauty. Our Saviour passed his most trying hours on earth in a garden, and through all later time, men of leisure and refinement devote their first wealth and opportunity to developing some of nature's beauties. This peculiar tendency of man for such a resort and pleasure could not escape the poets; and therefore it is, that we find all the Amative and Lyric poets, with some of the Epic, basing much of their claim to attention on the praises of garden walks and pleasures. There the tales of love are told, parties of pleasure planned and executed, and grave council held; and when the place is not specially referred to, some of its gifts or associations, are the absolute or symbolized medium of courtesy and intercourse.

Were the critic to carefully unthread from the acknowledged language of love, letters, and society all the images and epithets owing their origin to some connection with gardens and flowers, he would deprive it of half its ornament.

The great influence over the mind of an association with the beautiful during youth, is manifested in the lives of all great men; and it would be almost possible to decide on a man's general character from the place where he lived, and the scenery that surrounded him; and yet, however much the distant scenery may have moulded the more matured mind, its effect is not to be compared with that of the immediate surroundings of the cradle and homestead upon the more pliant mind of youth. Can we expect the highest developments

from one, who, struggling through youth in a hovel, is turned on to the world at some advanced period of life to fight for himself! Or to particularize a little more, and to select one of our New England farm houses as an example; what beneficial influence will that homestead exert upon the finer feelings, where the sole motto is, "Money makes the mare go," or "A penny saved is a penny gained;" where not only thrift is taught, but where is seen the daily practice of storing in some stocking end, old desk, or bank vault, those dollars, a few of which would have tightened the cracks in the barn, rehung the door, reset the decaying fence posts, repaired the paling or destroyed the hedge of nettles, burdock and wild lettuce that disputes the entrance. Is not that father to blame, who, by neglecting all out door ornament, has lost all vestiges of beauty and comfort to the homestead, so that the growing boy is ashamed to own that it is his home! Does the son or daughter neglect one bit of house or farm work in order to beautify the front yard, train the vine over the window, or eradicate the weeds from the pathway!

On the contrary, do we not all know that the time devoted to such things, *when once the beginning has been made*, is "between whiles," and never missed! And have we not all seen the speaking eye, and swelling heart of the child at the gate, when passing strangers have stopped to notice and praise the farm-house, as embowered amidst flowers, shrubs and trees, its pretty vine-clad porch has met the view!

Less often would the lad leave the half-finished supper of a summer eve for the country store, were there a little weeding or tying to do in his sister's garden; how proudly he would cull his Sunday nose-gay for the little girl around the corner, and half-chokingly whisper the invitation to come and see *our garden*. It is not often that we see in country villages attempts at real gardens; it is commonly some stray corner that cannot be used for anything else, or some bit of border grudgingly spared, that is devoted to flowers—but wherever it does exist it sets the example to all, and gives a certain degree of character and elevation, to the house to which it belongs. In our American homes too much attention has been paid to the "almighty dollar;" and though some few pinks and a stray rose or two, border the front walk, most get no farther, and meet the argument of beauty, &c., by the unanswerable rejoinder, "it won't pay! it won't pay!" Indeed, if measured, even in *money value*, it will pay. Somehow a connection with the culture of flowers gives a delicacy and refinement to the most boorish, and the more earnest the love for them, the more sure are other refinements and cultivation to follow. It is really surprising to notice how soon after *even our rough* Irishmen are introduced into gardens and green-houses, they begin to soften and humanize, and thus stand ahead of all their brothers. Certainly no one will be found to deny that in America, education is of the highest value; we all know how difficult it is to induce boys and girls to study; they are too fond of play; but teach them to love flowers, and not only to love them for their beauty and fragrance, but for their relation to all other animated life; show them how mysteriously they are formed there in the earth, and coming up into daylight, grow and wax by a hidden power, not one whit less marvellous than that which develops men and ani-

mals; show them that it is not only for their particular worth they are to be prized, but because—

"There's never a leaf or a blade too mean
To be some happy creature's palace;"

show them that each flower has not its *single* insect dependent upon it for its support, and that just as in its weakness and diminutiveness it contributes to the welfare of the animal kingdom, so in its strength and might does the oak, and with it all other trees.

In this way you may arouse their curiosity; you may lead them along till they find themselves enwrapped in the love and study of natural history, and from that how short a step to all other knowledge; for it is not the *ground covered* so much, as the *habit gained*, of application. Were no farther benefit obtained than polish of manners, few would doubt of the moneyed value of the acquisition; for were it the market gardener, the plowman, the shop-keeper, or professional man, he will gain most wealth, who, other things being equal, has most refinement of manners.

In farming communities, however, too much work devolves upon the males, to allow them to devote a great deal of time to gardening, or to the arranging and caring for flowers; the most that can be expected of them will be, the doing the rough work in spring and fall, and they must leave to the females the remainder. No work can be more consonant with the best idea of woman, than the culture of flowers, and to them all but heavy work might be left. So predominant a thing, however, is fashion, that but too often, many who would like to have gardens of their own are deterred because they think it will *look* strangely to be seen working in them. *Care nothing about looks!* Be assured you will get more health, strength and *looks* into the bargain, by devoting a portion of each day to flowers, than by bending over fancy work, or devouring the last new novel. What ever is true in the country, where like seems not to breed like, and where because the men work in the field, the women feel they may not be partakers of any out of door employment, it is less so in cities and large towns, where very many take the entire charge of their flower gardens during the year, with the exception of the spring digging, and who, bringing to their aid their usual taste and skill, seem even to surpass themselves in all rivals of equal advantages. In close connection in the world of letters with this kind of occupation, is botany, which seems of all the sciences to be the only one specially adapted to woman. For in it there is none of the labor of the geologist or the dirt of the chemist. But it is an investigation of the rarest beauties of nature, accompanied with an entire freedom from all that makes learning disagreeable,—offering the attractions of sun and fresh air, flowers and fruit, and at the same time giving a width and comprehensiveness of mind unsurpassed by any other study. We pass most naturally and easily from the garden darlings, to the wild flowers; from the idea of them as plants, to their connection with the animal world; taking some one plant as our type, we may name and arrange hundreds of others that before we could know nothing of, beyond the fact of their existence and general appearance.

In the garden, too, the tired husbandman may stroll, the day's work over, and at the same time he rests his wearied limbs, refreshes his whole physical man, and instructs his mind.

Here too, is the favorite play-ground of childhood, and better here, by far, than amongst the laboring men or by the road-side with the idle loafers of the village. And when the mother needs change and pleasure, after she has laid aside broom and duster, where better may she turn her steps than down paths fringed with roses and lilacs; now stopping to train a broken or straggling branch or pluck a flower; or revel in the warm sunshining and summer breeze,

Thus far the garden has been treated, as though there were but one kind. Such is not the case, and it were best to divide it under different heads. First, "Flower and Kitchen Garden," then Flower Garden, into the artificial and natural, in either of which we may have flower borders, beds, in parterres, shrubbery, vines or trellises, &c., and in close connection with which may be hot-houses, conservatories, or mere house and lawn, or yet simpler still, farm-house and front fence.

For the present we will leave the subject, to be recommenced at the consideration of the true flower garden, as it best accommodates particular localities.

R. M. COPELAND.

Jan., 1854.

For the New England Farmer.

PROMOTION OF AGRICULTURAL IMPROVEMENT.

Whoever takes a retrospective view of the agriculture of Massachusetts during the last quarter of a century, must be convinced, that greater progress has been made in this fundamental branch of human industry, during that period, than in all previous time.

While heretofore, agriculture has, in some measure, been looked upon as a pursuit that might well be left to the least informed, it is now assuming that rank among the professions of men, which it must in the future, always hold. Underlaying, and upholding all other pursuits, it should receive that encouragement and support, which its intrinsic merit demands. Among the prominent causes, which has given an impetus to this pursuit is the publishing of able papers devoted to the subject, and the establishment of agricultural societies.

Although the county societies have done much to effect an improved husbandry, and all that their limited means will permit, still, there is very much more desirable to be done. The time seems to have arrived when each county society should have a farm upon which stock shall be reared from the most valuable domestic animals, which this, or any other country affords. Upon which reliable experiments shall be made in the cultivation of crops, and the most profitable manner of feeding animals. Where the most desirable varieties of fruit trees shall be planted, and their adaptedness to the locality tested. Where the most valuable grains and vegetables shall be produced. Where exact experiments shall be made in the application of the various fertilizing materials in the production of plants. In short, from whence the whole agricultural community, shall see, by example, the best mode of culture, and be able to obtain the best animals for the improvement of stock. While the county societies are doing what they may for the promotion of agriculture, it is hoped and believed, that there are

in the community men of opulence, and of a generous public spirit, who, when they see what some of these societies are most desirous to do, will, sooner or later, make such a donation as shall enable them to carry into effect so important an object. Such a gift for such a purpose would give new energy to agriculture, and be a monument to the memory of the donor, more enduring than pillars of granite, or inscriptions in "eternal brass." Fortunate would be the society so favored, and happy the individual whose name would be remembered, while ages roll away.

Lynnfield, Jan. 9, 1854.

ESSEX.

A MODEL FARM—WHO WILL ESTABLISH IT!

MASSACHUSETTS stands conspicuously among the States for her enterprise, wealth, and benevolence. Her industrious children have conquered and enriched her hard and rocky soil, built up beautiful villages and pleasant homesteads all over her land, busy with the hum of wheels, the blows of hammers and the earnest activity of thousands of ingenious heads and hands. She has erected cities, from whose ports she sends out ships unsurpassed in their fleetness and in the comforts they afford their occupants, and which enrich the world by the articles of warmth and industry which they convey from the hands of her artisans to the remotest shores. Her merchant princes and good men have aided in the establishment of noble institutions to ameliorate the condition of the unfortunate, to preserve the morals of the young and tempted, to elevate the arts and sciences by establishing schools for the encouragement of their devotees, and in providing the means for the education of all. The world will always be the better for the munificence of her PERKINESSES, APPLETONS, LOWELLS, LAWRENCEs, LINCOLNS, SHAWs, PRABODYS, BATES, and many others of enlarged and liberal views. They have done well, and their memories are embalmed in the hearts of a grateful people, a monument more enduring, and of a thousand fold more value, than rocks or metals piled together for the elements to beat upon and crumble into dust.

Wherever we go we are reminded of their benevolence by the libraries, asylums and institutions of learning which they have originated or sustained. But in the midst of all these, the interests of agriculture—the great interest underlying and sustaining all the rest—have been overlooked.

It is a universal feeling all over our State, in the minds of our young men and women, that the pursuit of agriculture is not as profitable, genteel, or honorable, as most other kinds of business. This springs from a want of knowledge of its true character. This impression must be eradicated, and how to accomplish it is the problem to be solved.

We believe this may be done in a great measure by establishing one or more *Model Farms* in each county in the State, where all may see what re-

sults can be obtained in this noble Art, by a combination of system, energy and skill, sustained and encouraged by ample means, where some of the best minds, both among males and females, may be thoroughly educated for every branch of husbandry, and be made acquainted with the books and lives of the distinguished leaders in rural industry.

There is no place among us now where this can be done. The county societies are limited in means, and can only encourage the common operations of the farm. Few, or no, long-continued experiments are made in the breeding of stock, in the various crops of grains, fruits and roots, or in the analysis, draining, and general management of soils. In their action, the farmer sees no associated effort upon single points where ample means command the largest experience, the most patient investigation and the ripest learning to unravel their mysteries.

Here, then, is what we need. Who among our opulent men, men of enlarged views, whose hearts swell with the desire to be useful to those who shall come after them, will lay the foundation of an institution from whence shall flow perpetual blessings to the sons of toil? Whose memory shall be cherished in the hearts of our children, and in those of their posterity, as the benefactor of the masses, and who opened unto them the gates of knowledge?

We are confident that the good old Commonwealth has many gentlemen who would gladly aid this good cause if some definite plans were laid before them, and they could see that their bounty would really aid the efforts of the farmer in obtaining a better knowledge of his occupation. Similar thoughts are uttered in another column of this paper by one of the most intelligent cultivators in Essex county. Who will second these suggestions?

FRANKLIN COUNTY SOCIETY.—The annual meeting of the Franklin County Agricultural Society was held on Saturday, January 7, and the following persons elected its officers for 1854:—

HENRY W. CUSHMAN, <i>President.</i>	
JOSIAH FOGG,	} <i>Vice Presidents.</i>
LUCIUS NIMS,	
H. G. PARKER, <i>Secretary.</i>	
W. T. DAVIS, <i>Treasurer.</i>	

CONNECTICUT STATE AGRICULTURAL SOCIETY.—We believe the good people of this State are still without any State organization to encourage the pursuit of agriculture. In the last number of *The Examiner*, published at Norwich, in which the agricultural portion is ably conducted by our occasional correspondent, Mr. CLIFF, the subject of a State Society is strongly urged, and a Constitution set forth. An annual meeting was to be

held on the 11th instant. They purpose to have model farms, and the constitution requires the holding an Annual Cattle Show and Fair. Press the matter vigorously, friends.

For the New England Farmer.

THINGS AWAY UP IN VERMONT.

LAMOILLE COUNTY.

MR. EDITOR:—The time was when almost all from Vermont, who happened to get strayed away down as far as your city, were called "*rather green*;" and many the jokes that were played on them; but sometimes they got an "*appropriate*" reply. Well, they could not naturally be otherwise than "*green*," as they "*grew up*" in the green valleys, with the "*green mountains*" and hills all around them. "But things are not now as they used to be;" for time has wrought a change in the "*face of the land*," and also in the "*heads of the people*." It is now *known*, as can be seen by your reports of stock, produce, &c., compared with that from other States, that there is something valuable in Vt. Lamoille county, though it does not contain so many "*broad acres*," as some other counties in the State, and though it is intersected by two of the loftiest ranges of the green mountains, contains as good land for farming as there is in the State; and in it lies one of the most beautiful and lovely valleys in New England. This valley lies between the two ranges of mountains that intersect the county, north and south; is 8 or 10 miles wide, generally level, the soil *excellent*, easily to be worked and free from stone,—unlike some parts of New England. Stowe, the most southern town in this valley, that lies in this county, is one of the handsomest and best in the State. Morristown, north of it, extends to the valley of the Lamoille River, and is about equal to Stowe in beauty and excellencies as a farming town. The Lamoille River passes west through the centre of the county, and has some very good falls for propelling machinery. The falls and cascades at Morristown are exceedingly beautiful and romantic; and there is a *chance* for extensive manufacturing establishments. A little of your Boston capital and energy would make the waters that pass here tell something beside their babblings; though there are now some improvements. Hyde Park, the shire town, (25 miles north of Montpelier,) lies north of Morristown and the Lamoille, and is a good farming town. This town is celebrated for "*growing*" hops. They "*calculate*" that the expenses of cultivating and harvesting an acre, after the first year, are about the same as an acre of corn. They plant about 1000 hills to the acre and get 2 lbs. to the hill, in a good season, which would be 2000 lbs. to the acre, and at the present prices, 40 cts. per lb., would amount to \$800. Pretty good pay for cultivating an acre of land.

The valley of the Lamoille contains some excellent farming towns. Johnson and Cambridge, down the river, are very good. There are other towns in the county excellent for stock, dairy, &c. Some of the "*back places*," and the sides of the mountains, are covered with beautiful forests, which will be more valuable at some *future* time than at present; though wood and lumber have advanced in price within a few years. The farmers, in this vicinity, now have something to en-

courage them to do well, (encouragement is *something* to a farmer as well as to an editor,) for their produce, stock, dairy, &c., have advanced from 25 to 50 per cent. within a few years; and they can get cash too. Many have learned that it will pay to improve, as well as work their farms; for those farms that have been well cultivated, are now worth one-half more than they were a few years ago. One great cause, that has advanced the prices of farm produce here, is the facility to get it to market, since the railroad came through this vicinity. Such clumsy fellows as potatoes, even in this cold season, are sent to your market, weekly, from "these regions;" and the farmer takes the cash for them at his door at prices nearly 100 per cent. higher than he once could. Ten or fifteen years ago, the farmers here could seldom get cash for many kinds of their produce, and when they could, it was at such prices as would not recompense. Now, everything they can raise "is good as cash in hand," and at "fair prices." Formerly the goods, brought from "your town," and elsewhere, by the merchants, were sold, many kinds, 25 to 50 per cent. higher than at present. Most farmers then bought on credit, to be paid in produce, after they could raise it. The merchants charged 25 per cent. or more than for "cash down," and when the farmer brought his produce, he did not realize but small pay for his labor.

Many a farm had to be mortgaged, and at last go into the hands of the merchants by such dealing. Now almost everything the farmer can raise brings cash, at prices 25 to 50 per cent. higher than formerly, while many kinds of the merchant's goods are as much lower, which makes quite a difference in footing up the farmer's account; and his profession is now considered as profitable and honorable as any. The farmers here now take courage, and there can be no mistake, that improvement in cultivating the soil is advancing.

And there is also an improvement in the minds of the farmers, as regards that profession, else they could make none in the soil; for no one can do a thing till he *knows* how to do it, and we hope many a farmer is striving to obtain that knowledge which gives power to his profession. Yet there are some old fogies who think they know it all now, and that their experience supercedes all scientific investigation. All improvements in the arts and sciences have had opposers, even by those whose interest it was to encourage and protect, and there are many who still plod along in the "same old beaten path," and say there is no use to try to do more than what has been done to improve agricultural business. But the dark cloud, that has lowered on the brow of many an honest farmer, must eventually be dispelled by the bright rays of intelligence, that now shine through the whole land.

There are influences in operation that cannot be resisted. The hundreds of agricultural societies and journals in the union are obtaining, and spreading broad-cast through the land, that knowledge which must *some time* influence and benefit every farmer. Already is that influence greatly felt even away up in this back corner. Many a farmer has received "much good" by perusing the *N. E. Farmer*; and many more might receive, in useful knowledge, if they would take and read that excellent paper, 500 per cent. on their money advanced.

MILAN.

Morristown, Lamouille Co., Vt., Jan. 1854.

REMARKS.—The other portion of your article, not being particularly connected with the foregoing, will be given at another time. Imbue all others with your own spirit and the occupation of farming will soon take a different hue. •

FIRST AGRICULTURAL MEETING,

AT THE STATE HOUSE, JAN. 17, 1854.

At the close of the series of the Legislative Meetings at the State House last winter, Mr. FLINT, the Secretary of the State Board of Agriculture, was requested to call this opening meeting to order, and take the preliminary steps for its organization: but being detained by sickness and the pressure of other duties, Mr. PROCTOR, of Danvers, called the meeting to order, and nominated Col. WILDER to act as Chairman for the evening, and he was elected.

On taking the Chair, he expressed his gratification at being present upon the opening of another series of these interesting meetings, his hearty co-operation in their objects, and willingness to take part in their deliberations whenever it might be in his power. He spoke of the benefits of a free interchange of opinions in a familiar manner, and of the encouragements to the friends of the cause in the manifest progress of the last year, in the new interest evinced by nearly all classes of our people. He said that a gentleman had already expressed a willingness to contribute fifty thousand dollars towards the establishment of an Agricultural school, whenever the Commonwealth would appropriate double that sum for the like purpose. He then spoke of the improvement in the implements of husbandry, the use of guano in restoring exhausted lands, of the great increase of the crops common to our soil, and the earnest desire of all to promote the great Art.

The meeting was further organized by the election of an Executive Committee to consult and co-operate with Mr. FLINT, the Secretary of the State Board, in arranging the business of future meetings. This committee consists of Messrs. BROWN, PROCTOR, FRENCH, SPRAGUE, SMITH of the Senate, RUSSELL, and SEWALL of the House.

Messrs. SIMON BROWN and WILLIAM J. BUCKMINSTER, were elected Secretaries.

The President then called upon Professor NASH, of Amherst College, who was accidentally present, and who had recently returned from an agricultural tour in Europe, to favor the meeting with some remarks relating to his visit. Mr. NASH said he was unwilling to occupy the whole, or a large portion of the time of this meeting—believed it would be better employed by a free interchange of thoughts among practical farmers—would however say a few words about his recent tour in the British Islands.

He landed at Portsmouth on the 10th of June—

found it beyond his expectations a strongly fortified place—after strolling an hour or two among the long guns of its ramparts, and surveying the naval station at Gosport, and looking out upon Britain's wooden walls, floating majestically on the neighboring waters of the Spithead, he was impressed more strongly than an American well can be at home with the desirableness of perpetual peace and amity between England and America.

A subsequent visit to Woolwich, Chatham and other military stations served but to deepen this impression; not that America has anything to fear from England or from any other quarter; for so long as she pursues her mission of developing the resources of a new world justly and peaceably, she has nothing to fear from abroad, nothing out of herself; but you no sooner set your foot on the soil of England than you begin to feel at home; on the broad ocean you had felt that you was far away, but in England you feel at home; it is impossible not to recognize the people there as brethren; you look at a name over a door, it is the name of your nearest neighbor; you look over the next door, there is the name of your best friend; you look over a third, and see your own name, over a fourth is the maiden name of your wife; something very like this had happened to the speaker again and again. It was impossible not to feel at home and among brethren in England; and then again so kind and respectful are the feelings of Englishmen towards Americans, that, if one has anything in the shape of a heart in him, he cannot help praying that there may be peace and friendship forever between us and them. War would be a *family quarrel*—the worst of all quarrels to heal. It would be fratricide. If any gentleman here does not feel this, he could not see England's power, or enjoy her hospitality without feeling it.

The speaker could not forbear from stating, that Englishmen had often said to him; "we hear that your school-books are full of revolutionary tales calculated to inspire hatred against us." They said "*we are not the men who sent armies to burn your cities and slaughter the inhabitants; we no more approve the counsels of Lord North, or the weakness of George III. or the brutality of some of his officers than you do.*" The charge with regard to our school-books is partly true, and the evil should be remedied at once.

At 12 o'clock on the same day of landing, he took the ferry-boat for the Isle of Wight; landed at Rye seven miles from Portsmouth; found this a beautiful and thrifty town; fell in here with an old friend from America, and agreed to take a pedestrian tour with him over the island, considering that, however, as a pedestrian tour which consists in riding on coaches and walking alternately. From Rye we went to Newport,

which is the geographical centre of the island and the largest town on it. Here we spent the Sabbath; and after twice attending church as we would have done at home, we visited East and West Cowes, ship-building stations on the north side of the island. In this visit we passed down the east tank of the Medina. This led us by the Queen's palace Osborne House, and the residences of many of the English gentry on this island. From East Cowes we crossed the river to West Cowes, and returned to Newport by the west bank of the river. On Monday morning we visited the house where the last effort was made to treat with the unfortunate Charles II.—an interview in which English loyalists would say, he completely outwitted his enemies, but in which English freemen would say that he exhibited such a dogged hostility to the people's rights as rendered him worthy of his fate. From this old building, now used as an academy, we went to Carisbrooke Castle, an immense structure, the residence of royalty, at times, for some fifteen hundred years. Here we were shown the room in which Charles I. was long imprisoned, and from which he was taken to London, where he was condemned and beheaded. Wherever you go in England, you find reminiscences of this unfortunate king; and everywhere you find the conflicting opinions of him before alluded to. From Carisbrooke, we continued our tour far towards the west end of the island, turning thence south, and passing along the southern coast and the eastern back to Rye. This took us through the best agricultural parts of the Island, as good perhaps as any in the British Islands, if not in the world.

The land in this island, amounting to perhaps 100,000 acres, is all beautiful, much of it eminently good. The scenery is exquisitely fine, alternating beautifully cultivated vales with gently swelling hills there called downs and fed by almost numberless southdown sheep. The land is divided into farms of from fifty to seven or eight hundred acres, and some larger, embracing several thousand acres. The staple vegetable products are turnips, barley and wheat; the animal products are beef, mutton, wool and pork. The Isle of Wight is often called the garden of England. Its exquisite beauty entitles it to the name; and in addition to feeding a population of some sixty thousand people, it sends immense amounts of produce to London.

The farms in this island are generally divided into large fields. The plow-share of reform has been driven through the old, wide-spread hedges, cutting farms into many small lots, and thus covering, as in many parts of England, yet unreformed in this respect, one acre in twenty-five of the land, and sheltering game enough to consume a large per cent. of the crops. Nothing can be conceived more beautiful than the cultivation of this island.

The hedges are almost uniformly so trimmed as to occupy but little land; scarcely a weed could be found on the island. A general rule in leasing land is, not to permit the growing of two white crops in succession. The owners are also shy of oats. They regard oats as an exhausting crop; in traversing the island, you see here a field of wheat covering forty, sixty or one hundred acres; then a like extent of turnips, a field of barley, or a patch of oats, or scarcely one of flax. In one place you see five hundred or one thousand acres of down (rolling hill land) grazed by thousands of sheep; and near by meets your eye a rich valley, fed by scores of fine Durhams, Herefords or Devons.

Amid so much that is so bright, beautiful and cheering, one thing grieves the American who comes here, to the very heart;—agricultural laborers are not half paid. Nine shillings sterling (about \$2.12,) per week is the uniform price paid for farmer labor. The laborer boards himself. The land being let in large portions to the great farmers, it is impossible for him to get a few acres, or a patch even, to cultivate on his own account. In nine cases out of ten, the sole dependence for his family is in his wages, unless his wife works in the field, or he has children old enough to draw wages. There is terrible oppression, and yet it is hard to say who is the oppressor. One can hardly find it in his heart to blame any one.

The intercourse of the landed aristocracy with the tenant farmer seemed to us kind and generous; nor could we say anything worse of the tenant farmer than that he, in accordance with a general mercantile principle, buys his labor as cheap as he can. The fact is, the evil is the result of a state of things, for which the farmers are not alone responsible, and which is now in a rapid process of reform. Labor on the farm is now rising in price, in most parts of the kingdom, especially in portions intermingled with mercantile and manufacturing interests, so that now farm laborers in the vicinity of large towns are getting 12, 13, 14 and in some cases as high as 15 shillings a week; though still, in the purely agricultural districts, as in the Isle of Wight, wages remain as low as nine shillings a week. The laborers in these districts have not yet found out that wages have risen; it will be years before they will; but the time will come, thanks to America and Australia, rather, thanks to Divine Providence, when labor in Great Britain will be fairly rewarded.

The President then called upon ISAAC DAVIS, President of the Worcester County Society, who drew most interesting comparisons between the modes of culture and building in this country and England and France.

AMASA WALKER, late Secretary of State, spoke upon several topics, but particularly in relation to the importance of agricultural lectures in the

town lyceums, and that efforts by the State Board to furnish lecturers would prove of signal benefit.

Dr. REED, from Berkshire county, also spoke of the importance of more attention to agricultural matters, by the citizens of the towns in Farmers' Clubs.

Mr. DODGE, from Worcester county, spoke particularly of the improvement which had been effected in plows, and of the effects upon the old homesteads of the State by the introduction of so much foreign labor.

Mr. LAWTON, from Berkshire county, at a late hour, made some pertinent remarks, and then the following question:—Is the increased culture of *Indian corn* worthy the attention of the farmers of the Commonwealth? was announced as the subject for discussion on next Tuesday evening, when it is expected His Excellency the Governor will preside.

There were an unusual number of active and earnest gentlemen present, and the meeting passed with great spirit and gratification to all.

The meetings are free for the attendance of all, and it is hoped that our agricultural friends, and indeed, all others, will avail themselves of this opportunity to gather, as well as to impart, valuable information to others.

For the New England Farmer.

PROFITABLE COWS.

MR. EDITOR:—I noticed at the time, the account published in your December number, of the Alderney cows, owned and exhibited at the last Middlesex Fair, by Mr. ELIJAH M. REED, of Tewksbury. My attention has since been particularly called to the statement of Mr. Reed, as evidencing, in a high degree, the superior quality of this stock for the dairy. I conceded the great value of the animal—and the large yield of milk and butter, but did not consider it so unusual as to be astonishing. Nay, I insist that the records of our Shows for the last few years would, taking into consideration the *feed*, show a better result. With your leave, I will submit the proof to my friend through the columns of your paper. —Mr. Reed's statement is, that in 7 days of May, and 9 days of September, 16 days in all, his cows yielded 195 qts. of milk, which gave 30 lbs. 4 oz. of butter; so that, taking, an average of both trials, there was a yield of 12 qts. of milk daily, producing a daily average of 1 lb. and 15 oz. butter. The fractions I have discarded throughout the comparison.

This yield was upon the generous keeping of 2 qts. of meal per day. Now let us see whether or not the Worcester cows are left entirely in the shade by this lady of foreign blood.

I prefer, in making the comparison, to go back a number of years, so that, if it be said the comparison is with *chance* cows, it will be seen that we have a *good many* of them.

In 1844, Mr. H. B. LEACH, of Grafton, exhibited at our Show a cow, of what breed we are not informed, whose daily average from the 10th to the 20th of June was, omitting fractions, 14 qts.

milk, and 2 8-10 lbs. of butter. How she was fed does not appear.

In 1846, a $\frac{1}{2}$ Ayrshire cow of Wm. EAMES, of Worcester, gave, taking the required trials of June and September together, a daily average yield of 14 qts. milk, and 1 lb. 14 oz. butter; this was upon *grass* only. A cow of what we call native breed, (but undoubtedly of mixed blood,) was exhibited in 1848, at the Worcester Show by myself, which, for the 9 first days of June, gave an average yield of 18 $\frac{1}{2}$ qts. of milk, and of over 2 lbs. of butter daily, and for the first 9 days of September, an average of 13 $\frac{1}{2}$ qts. of milk, and of 1 lb. 11oz. butter per day. Her feed was a small supply of corn fodder in addition to pasture. No meal or shorts was furnished her.

In 1849, Jos. A. REED, of Princeton, exhibited a cow at our show, whose average daily yield for 20 days, the first 10 of June and of September, was 12 7-10 qts. of milk, and 1 lb. and 14 oz. of butter. This cow had no meal.

In the opinion of the committee for that year, the best cow was exhibited by the late Hon. JOHN W. LINCOLN, (now owned by me,) whose daily average, for the first 10 days of June, was over 15 qts. of milk and 2 lbs. 2 oz. butter, and for the first 10 days of September, of over 14 qts. of milk, and a trifle more than 1 lb. 15 oz. of butter. This cow was furnished nothing save what she gathered for herself in the pasture.

In 1850, a cow was exhibited by me, whose daily average for the first 9 days of June and September, being 18 days, was 1 lb. 10 oz. butter.

In 1851, HORACE CHENEY, of Worcester, exhibited a cow which during 10 days of June, and 10 of September, gave a daily average of 15 qts. of milk, and 1 lb. 13 oz. butter.

In 1853, H. P. REED, of Princeton, exhibited a cow, whose daily yield for the first 10 days of June and September, averaged over 14 qts. milk, and more than 1 lb. 13 oz. butter.

None of these cows had meal furnished them. What they would have yielded had they had, as Mr. Reed's, "*through the winter* 2 qts. of corn and cob meal, 1 qt. of shorts and good hay per day,—in *summer*, good pasturing with the *addition of grain* (how much?) occasionally through the drought in July and August, and 2 QUARTS OF MEAL PER DAY, while we were testing the properties of her milk for butter," of course can only be conjectured.

I might extend this comparison much farther, by going into other counties of the State. But enough has been done, I think, to satisfy the doubts of my friend.

After all, no one would more highly prize an Alderney than myself, and, if their price were within the means of an every-day working farmer like myself, no one would sooner purchase them.

I should like to see an account of the yield of one running with a herd of cows, and kept, not as our farmers are too apt to keep their stock, half weighed down by the manure which clings to their sides, but kept as all animals should be, *clean and warm*, and fed on good hay and roots through the winter, and furnished with good pasturage *only* through the summer. A comparison between an Alderney, and one of any other breed of cows, would then be of some value.

Yours, W. S. LINCOLN.

Worcester, Jan. 4, 1854.

REMARKS.—We are exceedingly obliged to friend LINCOLN for the above "string of facts" in relation to the Worcester cows. Such facts are encouraging to us who cannot afford to pay the high prices which are demanded for foreign stock, and will induce us to pay more attention to such as is produced within ourselves. These representations, made as they are by gentlemen of close observation and undoubted integrity, in different parts of the State, will produce the results so long desired, viz.—better care of our native stock, and a better knowledge of the comparative merits of the various breeds among us.

FARMING, AND OUR NEW GOVERNOR.

We have attentively read the Message of our new Governor to the Legislature, and find that, while all the other interests of the Commonwealth have been considered, *Agriculture*, which is the basis of them all, is not noticed. Well, as faithful chroniclers, we will endeavor to show the people that the Governor is right—that the capital invested in Agriculture in the State is so *insignificant* as not to be worth mentioning in a grave state paper in which the interests of the people are discussed; we will give the facts and figures, at any rate, and then let the *farmer*, who is considered competent to look after his own interests, while the merchant and manufacturer need the fostering care of the government,—we will let the farmer, we repeat, judge for himself.

In the year 1850, the improved land of the State amounted to 2,133,436 acres, and the cash value of the farms was \$109,076,347; the farm implements and machinery were worth \$3,209,584; the value of the live stock was \$9,649,710; and the value of the wheat, rye and Indian corn of that year, was \$2,857,732, to say nothing of the hay, fruit and root crops, which would be as much more. These sums find the farmer investing capital and producing crops in a single year to the amount of *one hundred and twenty-seven millions, six hundred and fifty-one thousand, one hundred and five dollars!* But then this interest is too small to be brought before the assembled wisdom of the Commonwealth; or it may be considered dangerous, and likely to override, and crush all the other industrial pursuits.

The other principal industrial pursuits gave for the same period, in capital invested and goods produced in the cotton and woollen manufacture, in pig iron, castings, wrought iron, malt and spirituous liquors, and tanneries, an aggregate of *eighty millions, three hundred thousand, nine hundred and fifty-four dollars*—leaving a balance of *forty-seven millions, three hundred and fifty thousand, one hundred and fifty-one dollars*, in favor of the industry of the farmer. We do not intend, now, to go into an exact statement of the comparative value and importance of the pursuits of our people—

it is not necessary to our object. We have not mentioned above, the products of many occupations, such as the manufacture of boots and shoes, willow and wooden ware, many other things; neither have we taken into account, on the other hand, the oat and barley crops, beans, peas, early vegetables, strawberries, and other small fruits, the great staples of butter, cheese and milk, and the important articles of timber and fuel. If all were fairly stated, we believe there would still be a large credit to the farmer, beside that found above.

Then we have in the Commonwealth, a *State Board of Agriculture*, composed of representatives from all the county societies, together with three persons appointed by the Governor and Council. This Board was established by the Government of the State, sanctioned by it, and has continued to receive something of its attention and care, and His Excellency the GOVERNOR, His Honor the LIEUT. GOVERNOR, and the HON. SECRETARY of the Commonwealth are members of the Board! But from this Message the people of the Commonwealth will learn nothing of the condition, or existence even, of this branch of the Government.

Nor do we desire to array one class of our people against another, or to excite discontent in any; all their varied pursuits are necessary to promote the wealth, dignity and glory of the Commonwealth. We only say this—that the farmer and his interests have been, and still are, neglected, by those whom they place in power; that his occupation does not hold that estimation in the public mind which its importance merits, and that until his interests are regarded, and his claims to the common respect acknowledged, our voice shall be heard in his favor so long as we have power to speak.

For the New England Farmer.

TRANSACTIONS OF THE HAMPSHIRE AGRICULTURAL SOCIETY.

AT AMHERST, 1853.

This young and promising society is starting ahead of most others, in their annual publication. If we do not mistake, it will be found a work of much interest. The address by Rev. Mr. Huntington of Boston, is one of the happiest we have ever perused. It amuses and instructs at the same time; without any pretensions to superior knowledge, he hits the nail directly on the head. It must have produced a decidedly favorable impression on his hearers. What is most creditable to the society, all the people of the vicinity, *female* as well as *male*, engaged in the exhibition. More than *one thousand entries* were made for the premiums offered. The Reports too, are not the hasty effusions of the moment, but well considered and arranged essays from gentlemen fully competent to the service. Where such a feeling exists, progress is certain. Older societies must wake up, or the younger will run away with the laurels. x.

January 8th, 1854.

For the New England Farmer.

FARMING BY STEAM, HAY-MAKING, &c.

MR. EDITOR:—That the Americans, as a body of men, or "Yankees are a fast people," no one can doubt who has watched the course of events for the past few years. Not content with applying steam power for railroads, steamers, and stationary engines, &c., it then must be applied for farming purposes, such as carting manure, plowing, sowing seed, and so on, and in a few years all our heavy farming will be done by "steam," so that very little "hand labor" will be necessary on the farm.

We have been led to these remarks in reading an article, a short time ago, in the "*New York Tribune*," on "Hay-making by Steam." The writer says, "Let the grass be heaped up as fast as cut, and covered with an India rubber cloth. Then a pipe from a steam-boiler, mounted upon a wagon, may be inserted under the centre of the pile, and steam applied to a degree of heat strong enough to almost cook the whole heap, at any rate to prepare it for rapid sun drying. We believe, from some experiments which we have seen in drying other vegetable substances, that green clover may be prepared in three hours for safely stowing away in the barn. By using metal caps instead of cloth, the process of steaming may be continued to a degree sufficient to expel all the moisture. Whether it can be used economically upon the farm, is the point which we wish to see settled, and that is what the agricultural societies should determine. Steam has already been applied to carry manure to the field, plowing the ground, and threshing the crop. No doubt it will soon be applied to sowing the seed and reaping, as well as mowing, and it only remains to cure the green grass as fast as cut by the same powerful agent.

This is not a chimera unworthy of thought. It is a subject which, sooner or later, will attract the serious attention of that portion of farmers who do think, &c. We confess that this plan of curing green grass in heaps into dry hay by a "steam boiler," carted around the meadow on wheels is the last operation in hay-making out. In all our experience in hay-making, the very best agent that we have yet found for curing hay is "old fashioned sunshine," and a plenty of it. Some seasons we are cut short of that "agent," to a great extent, by cloudy weather, and then we have to resort to air and wind, and also by curing hay in the heap by natural heat.

The plan of curing hay in the "heap" has been practised by many farmers for the last forty years. And in case of clover hay it should be invariably cured in that way, and stirred as little as possible till made. And in case of very hot, dry seasons, we are inclined to think that if all grass was one-half cured in the heap, it would be an improvement in quality of the hay. Still, the main dependence for hay-making is "sunshine;" not for one or two hours only, but until the hay is well made. And whoever lives twenty-five years hence, will see sunshine in as great demand for hay-making as now, "steam boilers" to the contrary notwithstanding. As for plowing by steam, we are aware that this plan has been strongly recommended by some "theorists" for several years

past, but we know not of the first trial ever being made in this country. If we mistake not, a trial was made in England, of steam-plowing, but it turned out a "failure and a humbug," as we should very naturally expect. There are, probably, some farmers, that can use a small, stationary steam engine to grind feed, move a threshing machine, straw-cutter, and wood-sawing, perhaps, at a cheaper rate than by horse-power. But in nine cases out of ten, we believe that the horse-power is the cheapest, most effectual, and the best power that can be used on the farm. As to carrying manure to the fields by steam-power, we suppose an allusion is made to Mr. Mechi, of England, whose experiments, in reducing solid manures to liquids, and then forcing them through iron pipes to different parts of the farm by a steam-engine. But according to the testimony of many English farmers, Mr. Mechi, as yet, is only an experimenter and a learner, and should not be considered a teacher, until he has had more experience in the business. We repeat what we have often said before on this subject, that we are not half as anxious that steam-engines should be introduced on farms to do farm-work, as we are that farmers themselves should improve in the business. We believe that there is already more improved farming implements in our "Agricultural stores," than farmers will make practical use of in the next fifteen years to come, to say nothing of steam-engines. We have no idea that labor-saving machines on farms, will so supersede hand labor, but that hand labor will always be in great demand on the farm. It is not always a safe rule to judge of improved farming throughout the State, by visiting our implement stores and seeing the various improved tools for farming. For it is one thing to bring out new implements, and the next thing is to have them put to use on the farm.

Yours, &c.

L. DURAND.

Derby, Ct., Jan. 5th, 1854.

FRANKLIN CO. PREMIUMS.

We copy from the *Greenfield Gazette and Courier*, the statement of Messrs. STEBBINS, of South Deerfield, SMITH & SONS of Sunderland, and POWERS, of Hadley. The *Gazette* says "the statements of these model farms are very interesting, and show that farming, when rightly conducted, is the most profitable of all pursuits."

It will be observed that these premium farms are all small in the number of acres. That of Mr. Stebbins, who took the first premium of \$20, contained forty-one acres. The amount expended on his farm for labor, interest, &c., was \$848 50, the products \$1940 25, leaving a net profit of \$1091 75. The following is the substance of his statement:—

When I came in possession, in 1831, ten acres of it consisted of a poor-worn out buck-wheat field. In 1838, I resolved to have a better farm. I hauled on clay, at the rate of fifty loads per acre. Then, I spread twenty-five loads of manure to the acre; sowed two hundred pounds of plaster; plowed all in together; planted corn, and obtained a fair crop. At the outset, I tried but three acres, by way of experiment; and, after witnessing the result, I continued until I had treated the ten acres alike.

After corn, I planted oats, and stocked down to clover.

By use of clay and manure, I have made all my land as good as the best, and increased my pastures one hundred per cent. in quantity and quality of feed. I have practiced plowing deep and do so, now, but in a different way from my former practice. I now plow in manure four or five inches deep; then subsoil as deep as I can run a subsoil plow. I prefer this to running deep, in order to turn up the subsoil. I commonly plant my land two years in succession; thereby mixing soil and manure, and pulverizing the soil for grass. Instead of oats, I raise barley, which I deem far more profitable to the farmer. Where we made one hundred loads of manure in 1838, we now make three hundred and fifty loads. I haul from seventy-five to one hundred loads of earth into my barn and hog yards, annually, to absorb the liquid manures, which I consider as valuable as the solid. I think much of hogs for the manufacture of compost manure. I have used salt with good results, on both grass and wheat. For old, worn out pastures, I recommend the free use of plaster, and for fruit trees, I apply salt and lime, freely, and wash often with white ley.

My farm has been divided, the present year, as follows: twenty-three acres of mowing; thirteen acres in corn and potatoes; three in barley and two in wheat. My stock consists of three pairs of oxen; three steers three years old; five cows; seven two years' old; three yearlings; one hundred and fifty sheep and twenty-five hogs.

The farm of Austin Smith and Sons, who took the 2d premium of \$15, contains seventy-three acres, thirteen of which are in pastures. The amount of expenditures was \$1788 65, of products \$3029 15; net profit \$1240 50. They say:

It is our practice in raising Indian corn, to plow, or harrow in manure, at the rate of twelve or fifteen loads to the acre, and to apply a handful of ashes, in the hill, at planting. We hoe four times, and usually seed the land with clover, red top, and timothy, for the next year's mowing.

We have put compost manure for broom-corn, in the hills, at the rate of sixteen loads to the acre, until the present year; when we have applied it, as on our Indian corn land, at the rate of twelve loads to the acre. We added half a spoonful of superphosphate of lime and plaster in the hill. We planted our broom-corn with Woodard's corn-planter, and we have never known our land so well and uniformly stocked as the present year.

We prefer, for a wheat field, to turn over rich and warm clover sward. Oats, we have nearly done raising. We plow from six to nine inches deep, and loosen the soil a little deeper each succeeding year. We usually make about three hundred and fifty loads of manure, every season.

Mr. Loomis of Whately, who drew a premium on an apple orchard, made the following statement:

My orchard contains over 100 trees, a part of which were set in 1844, others in 1847, and the remainder in 1848. The holes were dug six feet in diameter and about two feet deep, and filled with a compost of swamp muck and barn yard manure. The trees were carefully set in the spring of the year, which I consider preferable to fall setting. I have not lost a tree.

LEONARD LOOMIS.

Whately, Nov. 7, 1853.

MASS. STATE BOARD OF AGRICULTURE.

TUESDAY, JANUARY 17, 1854.

Board met at the State House. Present: His Excellency, the GOVERNOR, the LIEUT. GOVERNOR, and SECRETARY of State. From those appointed by the Gov. and Council, MARSHALL P. WILDER, and from the counties; MESSRS. BREWER, of the Hampden, BROWN, of the Middlesex, CLAPP, of the Franklin, DODGE, of the Worcester, FRENCH, of the Norfolk, LAWTON, of the Housatonic, PAGE, of the Bristol, PROCTOR, of the Essex, REED, of the Berkshire, SMITH, of the Hampshire, and SPRAGUE, of the Plymouth, societies.

After the reading of the proceedings of the last meeting by Mr. FLINT, the Secretary, a brief discussion ensued relative to the farm connected with the Reform School, at Westboro', and then the Secretary commenced the reading of his first Annual Report of the Board. The reading was continued through the day, but often interrupted by animated and most instructive discussions by the members of the Board. The reading and discussions continued through the day, until a late hour, when the Board adjourned.

WEDNESDAY, JANUARY 18.

Reading of the report was resumed, and after being continued two hours, was suspended for the transaction of other business—when, on motion of Mr. PROCTOR, it was

Voted, That the committee appointed to confer with the Trustees of the Reform School at Westboro', be authorized to make all such arrangements as they may think advisable, and to join in such petition or recommendation for authority from the Legislature, as may be necessary for this purpose.

THURSDAY, JANUARY 19.

The reading of the report was resumed, and occupied most of the day, and was not concluded, when it was laid aside for the transaction of other business. It was then

Voted, That in the opinion of this Board, if it shall be deemed expedient by the Legislature to grant acts of incorporation for agricultural societies, the geographical limits of such societies should be distinctly defined, so that no two societies hereafter to be entitled to the bounty of the State, shall cover the same territory.

On motion, MARSHALL P. WILDER was requested to prepare and report to the Board an Essay on the Culture and Preservation of Fruit, and a similar vote was passed requesting HARVY DODGE, of Sutton, to report on the culture of the Turnip.

Voted, That the services of CHARLES L. FLINT, Secretary of this Board, have been faithfully and efficiently performed, and his discharge of the duties of his office meets the entire approbation of Board. The Board then adjourned.

PEACH TREES.

The large crop of peaches last year destroyed a great many trees; almost all orchards show the effects of it in their broken and dangling branches. These should be sawed off now, if not already done, and the heads of all those not broken down headed in. We give below from COLE'S Fruit Book, a description with illustrations, of the proper manner of performing the work.



UNPRUNED.

"Prune peaches in fall, or early in spring. The fall is preferable, as by the reduction of the top, the tree will be less exposed to injury. Prune at the extremities, by cutting off one-third, or, when very luxuriant, one-half of the last growth. This mode is called *shortening-in* or *heading-in*, and it is most conveniently performed with stout shears, having long, wooden handles.

Trees pruned in this way will bear earlier, and produce larger, fairer, and better fruit, and larger crops to the acre, if set near, as we have recommended; and this mode will prevent over-bearing, by reducing the blossom-buds, and save the expense of thinning the fruit. It will also keep up a constant succession of new wood for the next crop, for the fruit is on the previous year's growth.

This is by far the best system of pruning, as it keeps the trees low and close, saving them from destruction by excessive crops, heavy winds, damp snow, sleet, and ice. It also economizes room, by many trees to the acre; it promotes health, vigor and longevity, and a constant production of good fruit.



SHORTENED-IN.

This system is now becoming general, and highly useful. A tree *shortened-in* is covered with fruit and foliage, like the neat small figure; while the *unpruned tree* (or that pruned only at the trunk) presents the deformity of naked branches, with the fruit and foliage only at the extremities, like the large, ugly figure, first given.

AGRICULTURE AT FRAMINGHAM.—We had the pleasure of meeting many of our friends at Framingham on the evening of the 16th inst., at their Lyceum and Farmer's Club. There was an ad-

dress and afterwards a discussion on the question—"How can farming be made so profitable and attractive that farmers' sons will choose their fathers' occupation?" Messrs. P. JOHNSON, C. CAPEN, C. B. TRAIN, Major WHEELER, SIMON BROWN, THOMAS GOULD, Wm. BUCKMINSTER, and others, took part in the discussion, and many valuable facts were elicited. We are glad to find the citizens of that wealthy and beautiful town so earnestly engaged in promoting the interests of agriculture.

EXTRACTS AND REPLIES.

MILK WEED—MOWING MACHINES.

Can you tell me of any practicable method to destroy milk weed? I have it on my farm, and it is increasing very fast. (a.)

Are you acquainted with the mowing machines now in use, and will you give me your opinion which is the best? I have come to the conclusion that I must have one for the next season, and it is very important to get the best. (b.)

York, Me.

CHARLES MOODY.

(a.) Thorough cultivation will eradicate milk weed, sorrel, white weed, (ox-eye daisy,) and thistles, from a single field; but if milk weed prevails in the pasture lands, and springs up, as we have sometimes seen it, extensively, under the walls and other places where the soil is not cultivated, you must cut them down about the time of their flowering, and persist in it as often as they spring up. They will not live long, deprived of their stems and leaves.

(b.) In the *Monthly Farmer*, vol. 4, p. 370, you will find an engraving of Ketchum's Mowing Machine, and in vol. 5, p. 457, a description of the machine, and the manner of working it, by Mr. K. himself. Not having yet used any of these machines, we can only give the opinion formed by seeing several kinds, and by what others have said of them. This opinion is that the machine spoken of above is the best yet introduced. They are manufactured and sold by Messrs. Ruggles, Nourse, Mason & Co., who have the right for New England. In their *Illustrated Catalogue* (a copy of which we have requested them to send you) you will find a faithful drawing of the machine, with some testimonials of its qualifications. It is our intention to try one of them next season.

MAPLE SUGAR.

GENTS:—Below you have an answer to "Who can beat this?" Your humble namesake, RUEL SMITH, made this season past, 4250 lbs. maple sugar on his farm, and in this town was made the same spring, 135,000 lbs.!

A. B. C.

COUNTY SOCIETIES.

DEAR SIR:—I should like to see an article thoroughly canvassing the merits of County Agricultural Societies—giving instances of their practical benefit, the best mode of conducting the same—officers and committees necessary—mode of conducting fairs—systems of premiums, &c., also presenting the obstacles to their formation, success

or practical value—and objections to them entertained by any. I have taken your paper the past year, and have been entirely satisfied with, and prize it the more highly as it eschews long, often repeated personal controversies, which so readily find access to some other papers.

B. F. RANDOLPH.

Freehold, Monroe Co., N. Y., 1854.

REMARKS.—Who will gratify our correspondent and thousands of other inquirers, in the particulars mentioned. Having his thoughts turned to the subject, cannot he write the article himself, as well, or better, than any other person! We hope he will try.

A LITTLE, YOUNG, SUFFOLK PIG.

MR. JOSEPH RAYMOND, of Hubbardston, writes us that Mr. JOHN BROWNING, of that town, killed a Suffolk pig on the day that it was nine months old, "which weighed when dressed and well dried off, four hundred and eighty-five pounds!"

A FINE PIG.

MR. JOSIAH W. PETTIGREW, of Ludlow, Vt., slaughtered a pig on the 6th of Dec. which was 247 days old and weighed 356 pounds!

THE CONCORD GRAPE.

In reply to the inquiries of the *Gospel Banner*, whether the new grape introduced by E. W. BULL, Esq., "is the Isabella," we have to say that it is not, nor a seedling of the Isabella—nor like it, "being of different shape, larger, handsomer, and better," as was pronounced by good judges at the Mass. Horticultural Society, who tested both at the same time.

In his *Magazine* for December, Mr. HOVEY says:—"It has not only proved by far the earliest grape we have, but also one of the most delicious, having, in the place of the musky flavor of the Isabella, the rich aroma of the Catawba, with which probably its parent was somewhat fertilized." We have tested the grape for two years past and have confidence in the statements made of it.

PASTURE BRAKES.

Inquiry by T. J. LEONARD, *Weston, Vt.* "How shall I destroy the common pasture brake?" Well, we don't know—it is a hard subject to deal with. If it grew in bunches, or the hassock form, you might undermine them with the bog hoe; but if it is what we suppose you mean, the brake that springs up in nearly all moist lands that are not cultivated, the common *pteris aquilina*, you will find it a difficult plant to eradicate short of plowing and thorough cultivation. Try a thick spot of them with a liberal sprinkling of salt spread on in January, and next summer, when in bloom, try another patch by mowing them off as closely as you can. Burning will not destroy the roots unless the burn is very deep. We shall look to you for some reliable information in relation to the subject.

To ISRAEL HERRICK, *Derry, N. H.* We reply to your queries as to what books we would recommend for the inquiring farmer, with a great deal of pleasure. A few only will be mentioned, viz.:—Downing's Fruit and Fruit Trees of America; Dana's Muck Manual; Elements of Scientific Agriculture, by Norton; American Muck Book; Rural Architecture, by Allen; Fruit Garden, by Barry; Bridgeman's Gardener's Assistant and Kitchen Gardener's Instructor; Rodger's Scientific Agriculture, and Elements of Agricultural Chemistry and Geology, by Johnston; the Farmer's Companion, by Buel. The list might be considerably extended, but these would make a good beginning.

COMPLIMENTARY.

"The great subject of agriculture is attracting more and more attention every day, and I am truly glad to see that it begins to assume the importance that it really deserves. Your paper, which comes promptly every week, is full of the right kind of matter, and if the tiller of the soil, with such a help in his hands, fails to learn, then I shall think there is not much hopes of this generation. You have undertaken a vast work, and I should think in some respects, a discouraging one, for even in this 19th century there are those so 'old foggyish' that they are not willing to practice or believe anything they may see in a book or newspaper. I am glad to know that there are those who do appreciate your labors.

Newton Centre, 1854.

J. F. C. H."

REFINING CIDER.

DEAR SIR:—If you will give a friend the best method to *fine cider*, and say whether any article should be added to prevent it from growing hard, I am confident you will oblige many.

A SUBSCRIBER.

If you wish to be very nice with it, filter through sand, add half a pint of mustard seed to each barrel, in a long bag, so as to leave room for it to swell. After standing in the tightly-closed casks several months, rack and bottle, but do not drive the corks until the cider has stood in the bottle 24 hours.

GRAPES.

"Which are the best grapes—the Concord or the Diana? and which make the best wine."

Bedford, N. H.

P. M.

The Concord grape has been pronounced by many good judges to be superior to the Diana. It has not the musky flavor of the Diana, but a rich aroma instead, which is to most people more agreeable. It is very thin skinned, has an abundant juice, and makes an excellent wine. We understand it will be for sale by Hovey & Co., by the first of April next, and will be advertised in the papers.

The Concord grape is said also to surpass the Diana in its more vigorous growth and bearing. The Diana has been growing for four years past by the side of the Concord, and does not bear one-sixth part the crop which the Concord grape does.

PREMIUM FOR FARMS.

"We have often thought, that one of the best modes of encouraging the farmer, was to offer premiums for the entire management of the farm. This view is supported by the result of such offers in the County of Hampden, the present season. Three competitors appeared.

Mr. Stebbins, on a farm of.....	40 acres.
Mr. Smith, on a farm of.....	73 acres.
Mr. Powers, on a farm of.....	87 acres.

Amounting to.....200 acres.

Mr. Stebbins states his nett profit at.....	\$1001,75
Mr. Smith states his nett profit at.....	1240,50
Mr. Powers states his nett profit at.....	1165,25

Amounting to.....\$3497,50

or an average of more than \$17 per acre. Who will say that this is not a fair income from lands that can be purchased for less than \$100 the acre? Who will say there is no profit in farming!"

WHAT EARLY IMPRESSIONS DO.

The extract below is part of a letter from a firm doing an extensive business in one of our cities, whose reputation for energy and integrity is well known to all in our Commonwealth, and whose business operations are extended to nearly all the marts of trade in the civilized world. See what they say for rural life. We emphasize a few words by inserting them in italics.

"As we were born farmers' boys, we took our first industrial lessons in riding horse to plow, dropping corn, driving cows to pasture, or 'jocund drove the team afield,' and are indebted for what of energy we have, and love of labor, to just that training. Although our tillage is mainly in other fields, our early associations and primitive tastes remain with all the fervor of a first love, and having our gardens, to which we have lately added five or six acres, 'suitably divided into mowing tillage, pasture and woodland,' we are grown young again, and have to express our obligations for the welcome weekly visits of the *N. E. Farmer*."

Yes, valued friends, and what is more than growing "young again," you will never grow old in the garden; employment there is perpetual life. The tenement you occupy may by-and-by falter and fail to do the soul's bidding, but the spirit itself will still dwell in the green pastures beside the still waters, until it passes on to its higher and holier state.

A CRITICISM.

We have before us a letter from a correspondent, signed "CONSISTENCY," saying some good things of ourselves, and indulging in some criticisms upon those who would impress the public mind, if they could, with the idea that we are mere "book farmers," knowing little or nothing of the practical operations of the art. The criticisms are severe, but just, but we shall withhold them at present, believing that in pursuing our plain path of duty, regardless of the carpings of the ill-natured, we shall in the best manner sub-

serve the interests of our readers. The extract which we make says—

"As to your being book-farmers, that may be opinion rather than a matter of fact. I asked an eminent agriculturist (a man of discrimination and sound judgment, who has been President of one of the most thrifty county societies in this State, and as such reflected honor upon himself and the society,) which paper published in this State, he would recommend a farmer to take to aid and assist him in his calling; he answered without hesitation, *The New England Farmer*.

THE POTATO DISEASE.

The Rev. LYMAN SMITH, of *Charlotte, Vt.*, writes us that he has prevented the rotting of potatoes by sprinkling the tops with ashes, as soon as they made their appearance, a table spoonful to each hill, and after hoeing applying the same amount again. The ashes were applied immediately after a shower, or upon a heavy dew. After such applications he has had no rotten potatoes.

THE WHITE DAISY.

JOSEPH W. NEWTON, *Norwich, Vt.* The best way to kill out the *white daisy* is to plow deep, manure well, and cultivate carefully. Where the plant is not very thickly set it is often weeded out, but it requires considerable patience and perseverance. Cattle will not feed it down, and standing in the grass fields, you cannot cut it when in bloom, so as to injure it, nor poison it with salt or any other nostrum that we know of. The plow, manure and hoe, with some new plant introduced, will gain you the victory. With regard to your other inquiry. We consider *clover* the best plant to plow in as a green manure. Turn it under, not when in its most green and succulent state, but when the heads are turned a little brown; that is, when it first begins to decline. SINCLAIR says an acre when in flower, yielded him 20,418 pounds, containing 717 pounds of nutritive matter. Theroots are nearly as valuable as the top.

LEVI SHED, *Hillsboro', N. H.* Plow your meadow as deep as you can with two pair of oxen, early in August; pulverize it with the cultivator and harrow into as fine a tilth as possible; manure with barn manure if you can—if not, apply 300 pounds of guano per acre, broadcast, and harrow in with the seed. An application of ashes would be highly beneficial. Would it not be better to take up one or two acres each year, and work and manure thoroughly, than to attempt more?

FARMING IN NEW ENGLAND.—The especial attention of the reader is called to the article of "D. O.," in this number, and to other papers which will follow this on the same subject. The writer is well informed on the topic he has chosen, and writes with such directness and force, that his article will be read with both pleasure and profit.

SECOND AGRICULTURAL MEETING,

AT THE STATE HOUSE, JAN. 24, 1854.

SUBJECT.—*Is the Increased Culture of Indian Corn worthy the attention of the Farmers of this Commonwealth?*

The meeting was called to order by MR. FLINT, Secretary of the Board of Agriculture, who stated that the Governor was prevented from being present by indisposition, but that he would take pleasure in attending whenever his health would permit.

Whereupon MR. SETH SPRAGUE, of Duxbury, was called to the chair; Mr. Sprague announced the subject for discussion, and offered a few remarks thereon.

The subject of the cultivation of *Indian Corn*, he said, was one of great importance to the farmers of Massachusetts. It is a native product of our soil, and has always been a principal crop with our farmers. We could cultivate it with greater profit than at present, were it not for the facility with which it can be raised in the great Mississippi valley, where it costs not more than fifteen or twenty cents per bushel. Yet we have the advantage of transportation in our favor, which keeps corn here as high as fifty or sixty cents per bushel.

We have much to learn in regard to the varieties to be planted, as well as regards the modes of culture. There has been a great advance in this respect within a few years. The crops have been doubled; we must plant less, manure and cultivate better. Corn he considered one of the best materials for fattening cattle he knew of, probably better than oil cake. Nothing imparts more strength and power of endurance to cattle.

[MR. FLINT suggested to the meeting whether it would not be desirable to have lectures not exceeding three-quarters of an hour each, at these meetings, on practical subjects, to be followed by discussions; stating at the same time that the State Board of Agriculture had voted to furnish \$100 to defray the expense of the lectures, if they were desired by the meeting.

MR. SIMON BROWN advocated the measure, and moved that the Executive Committee secure lecturers for such occasions as they saw fit.

The motion was carried.]

The discussion was then resumed, by Dr. REYNOLDS of Concord, at the invitation of the President. He said, Johnston's table of the nutritive matter yielded per acre, when cultivated in different crops, if reduced to data corresponding to the crops yielded by our soils in New England, though somewhat different from his results, cannot fail to throw some light upon this subject.

Johnston takes thirty bushels of corn to the acre as the basis of his calculation. But land with us that will yield 25 bushels of wheat or 50 bushels of oats, will yield 50 bushels of corn. Our

Agricultural Societies have not, for years past, given a premium for corn to less than from 70 to 100 bushels to the acre, and no good farmer will be satisfied with less than 50 bushels. We will therefore take 50 bushels for the ground of our calculation. Johnston adopts 60 lbs. to the bushel as the standard weight. This is 4 lbs. more than our standard weight, but Massachusetts corn will weigh 60 lbs. as often as 56. We will therefore take 60 lbs.

50 bushels of corn at 60 lbs. the bushel, will weigh 3000 lbs. One bushel of corn by his analysis yields 53½ lbs. of nutritive matter. The nutritive matter in one lb. then will be represented by 161-180 of a lb. or 14½ ounces nearly.

The nutritive matter in 1 lb. of meal is by the same analysis 11 2-10 oz. nearly. 25 bushels of wheat at 60 lbs. the bushel, is 1,500 lbs. Then we have 3000 lbs. of corn at 14½ oz. to the lb., and 1500 lbs. of wheat at 11 2-10 oz. to the lb. Now if we multiply the number of pounds of corn by the ounces of nutritive matter in a pound, and the number of pounds of wheat by the number of ounces of nutritive matter in a pound, we shall have the amount of nutritive matter yielded by the two crops respectively.

$$3000 \times 14.5 = 2718\frac{1}{2} \text{ lbs.}$$

$$1500 \times 11.2 = 1680 \text{ lbs.}$$

$$\text{Difference, } 1038\frac{1}{2}$$

in favor of the corn, or considerably more than double the amount of nutritive matter in the acre of wheat. We call the wheat straw equal to the corn straw, which we think about a fair estimate.

There is another view of this matter which we ought also to present.

25 bushels of wheat at \$1.65 per bushel will amount to \$41.25. 50 bushels of corn at 90 cents will be \$45, leaving a balance of \$3.75 in favor of the corn—which will just about pay the additional expense of cultivation.

Thus if the crop is to be sent to market, the wheat crop, considering the smaller cost of transportation, is quite as valuable as the corn crop. For the feeding of stock or hogs the corn crop is worth more than double the wheat crop.

If we institute a similar comparison between the corn crop and the turnip crop, we shall ascertain their comparative value. We will take half of Johnston's estimate, 15 tons to the acre, as data, and we shall have 3600 lbs. of nutritive matter from the acre. Now if we add to the nutritive matter in the corn that which is contained in the stover—viz. 1020 lbs., we shall have 3738 lbs. of nutritive matter in the corn crop, which is 138 lbs. more than that in the turnip crop. Carrying on the same analysis, we find that a pound of turnips contains 1 11-16 ounces of nutritive matter to the pound, while a pound of corn contains 14½ ounces. Then one pound of corn is equal in nutritive matter to 8½ lbs. of turnips nearly.

If we reckon turnips at 50 lbs. to the bushel, we shall have one bushel of corn equal to 10 bushels and 20 pounds of turnips. If corn is worth 90, then turnips are worth a fraction less than 9 cents a bushel, for consumption. Turnips have been worth from 25 to 30 cents a bushel this winter in this market. If we take 12 tons of turnips to the acre, which we think a truer basis for our calculation, we shall have 858 lbs. of nutritive matter in favor of the corn crop. If we allow 15 tons of turnips to the acre, the oil in the corn will be more than double that in the turnips, and on this the fattening property essentially depends.

If we compare clover hay, at 2 tons to the acre, we shall have 2420 lbs. of nutritive, to 3738 lbs. of nutritive matter in the corn crop. We find that 1 lb. of clover hay yields 8½ ounces of nutritive matter to the lb., nearly, making 120 lbs. of clover hay fully equal to a bushel of corn. Then when corn is 90 cents a bushel, clover hay should be worth \$15. For as 120 lbs. of hay are to 90 cents, so are 2000 lbs. to \$15.

I know it has been said that 1 lb. of meal is equal to 4 lbs. of good hay. If so, yankee farmers would not use hay worth \$20 per ton, when the nutritive matter which it yields is worth but \$7.50 compared with corn. The fact is, that 2 lbs. of good hay is about equal to 1 lb. of meal. This makes hay worth \$15, when 60 lbs. of corn is worth 90 cents. At the present prices, we had better use more corn than we do. Meadow hay, at one ton and a half per acre, by which, I suppose, Johnston means other kinds of cultivated hay than clover, yields 1720 lbs. of nutritive matter, less than half the nutritive matter contained in 50 bushels of corn, including the stover; meadow hay yields 8 4-21 ounces of nutritive matter to the lb.—a fraction less than clover.

Johnston makes the oat crop yield more nutritive matter than the wheat crop; but he calculates from oats at 42 lbs. to the bushel. If we take oats at 32 lbs. to the bushel, we find that the nutritive matter contained in 50 bushels, including the straw, is 2183 lbs., something more than one half the value of the corn. I have not spoken of the potatoes, from the uncertainty of the crop; could we be sure of 27,000 lbs. or 600 bushels to the acre, we should have 5385 lbs. of nutritive matter—1647 lbs. more than in the corn crop.

Major WHEELER, of Framingham, considered corn, at the present prices, 95 cents to \$1.00 per bushel, as a very profitable crop, for almost any farmer can raise 50 bushels to the acre, and the stalks are excellent for cattle, better than hay. He thought it best to cultivate corn on a flat surface. The land should be plowed deep, and the corn planted two feet apart one way and three the other.

Mr. BROWN, of Concord, expressed the belief

that Providence intended the corn crop should be a principal one in New England, and for several reasons. In the first place, our climate is admirably adapted to its cultivation. Our dry and hot summers perfect the corn crop when other crops fail. He considered it one of the most beautiful crops that grows. In every part of New England it may be raised for 50 to 60 cents per bushel, and in the event of a general war in Europe, now extremely probable, a great and unusual demand will be opened for it for some time to come. Even now, our exports of breadstuffs are large, and have amazingly increased over last year. The exports from the port of New York from Jan. 1st to the 19th in the years 1853 and 1854, were as follows:

	1853.	1854.
Wheat, bush.....	151,419.....	442,648
Corn.....	16,002.....	265,076
Flour, bbls.....	65,691.....	150,342

Making an increase in the value exported in two weeks this year, over last, of \$1,247,800. In view of these facts, and the probable increased demand, Mr. BROWN thought it would be good policy for New England farmers to pay especial attention to the crop. He considered the fodder obtained from corn-fields, yielding 50 or 60 bushels to the acre, as worth as much as the average crop of English hay we cut to the acre.

Major WHEELER said he used to think the corn crop a very exhausting one to the land, but now he felt convinced that there was no crop less exhausting.

The Chairman stated that much attention had been devoted in Plymouth county, to the raising of corn, and with great success, yields of 100, 120, and even 145 bushels to the acre being attained. The corn is planted closely, not more than two feet apart. Some have planted two feet apart one way and 18 inches the other, and succeeded well. On certain kinds of soil, when planted closely, the corn, will shade the ground, which is better than to expose the soil to the heat of the month of August, particularly if it be high land. Yet he would not recommend as a general rule, or as a matter of economy, the planting of corn less than three feet apart. The corn planted in Plymouth county has a small stalk, with a full large ear.

Mr. SHELDON, of Wilmington, believed that corn did better when planted closely. If the land is well manured, there are not so many suckers, when planted in this manner. On two lots of which he was cognizant, the thickly planted corn did better than that which was planted with longer intervals between. He believed that a good fair acre of corn fodder, contained as much nutriment as an acre of hay, and he thought that raising corn was a good preparation of the ground for hay. It will draw more from the land than hay, but nothing in comparison with other crops.

Mr. PROCTOR, of Danvers, thought the corn crop was worthy of increased attention, because it was one of the most certain crops. True, we sometimes lose the crop by frost, as in 1816, and perhaps once or twice since, but it is very rarely the case. It is as certain, if not more so, than any other crop of grain we raise. With increased attention to culture, our average crops would be increased 50 per cent.—they could be brought up to 50 bu. per acre. Mr. Proctor alluded to the difficulty which has been experienced in ascertaining the amount of a crop, from the lack of a standard measure, and stated that the Board of Agriculture had decided that 80 lbs of corn, as taken from the field in the ear, constitutes a bushel. But when this corn is fit to grind it will have shrunk 20 per cent. One consideration which favors the raising of corn, is that the drought occurring in August and September, which is so annoying to farmers, may be counteracted by raising green corn for fodder, which is the best article that can be fed to cows. The quantity that can be raised has hardly any limit. After cutting his hay, the farmer can turn the sod, and plant corn. The farmers of Essex County regard it as the best mode of guarding against drought.

Mr. LAWTON, of Berkshire County, stated that the committee of the Housatonic Ag. So. selected a rod in a lot of 40 acres of corn offered for premium,—that rod being neither the best nor the poorest in the lot, but as near an average as they could judge—and reckoning from the yield of that rod, the amount per acre was a trifle over 100 bushels per acre. He considered corn fodder excellent for cattle; it will make a cow give more milk than anything else. The corn used in Berkshire is the yellow 12 rowed corn, resembling very much the Dutton. Would plant three feet apart and four kernels in a hill. Turn the furrow over flat and harrow down, and then plant the corn with a mixture of ashes and plaster.

Mr. BUCKMINSTER inquired whether some other variety, as the sweet corn, although less bulky, might not contain more nutriment than the Southern corn?

Mr. DODGE, of Sutton, offered a few remarks enforcing the advantage of plowing deep for corn. He would plow 11 inches.

The Chairman, then, at half past 9 o'clock, announced the subject for next Tuesday evening, as follows, and the meeting adjourned:

"What can be done to make the Home of the Farmer more attractive and agreeable?"

It is expected that there will be a lecture at the next meeting.

MEASURING CORN.—To measure corn in the ear in a crib: Multiply the length, width and depth of the bin together, and their product by 4½. Cut off the right hand figure, and the remaining figures will be the number of bushels of shelled corn, and the figure at the right, the decimal of a bushel.

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Has to offer to his Patrons and the public, the sub-joined list of Nursery Stock. The whole is of finest description, in the best order, and will be sold reasonable.

- 200 Cedrus Africana, 6 to 9 and 12 to 18 inches.
- 1,000 " deodara, 1 year seedlings.
- 500 Cedrus deodara, 6 to 9 and 12 to 18 inches.
- 200 " " 2 to 3 feet.
- 500 Funehal Cypress, 4 to 6 and 6 to 9 and 9 to 12 inches.
- 1,000 Junipers English, 6 inches.
- 1,000 " " 1 to 2 and 2 to 3 feet.
- 1,000 Pinus excelsa, 1 year seedlings.
- 500 " " 9 to 12 and 12 to 24 inches.
- 8,000 Scotch Fir, 8 to 9 inches.
- 200,000 Silver Fir, European, 4 to 5 and 6 to 7 inches.
- 50,000 " " 7 to 8 and 8 to 9 inches.
- 10,000 " " 1 to 2 and 2 to 3 feet.
- 2,000 " Webbiana, 4 to 5 and 5 to 6 inches.
- 500,000 Norway Spruce, 4 to 6 inches.
- 500,000 " " 8 to 8 inches.
- 50,000 " " 9 to 12 inches.
- 10,000 " " 1 to 2 and 2 to 3 feet.
- 3,000 Yews, English, 6 to 9 and 9 to 12 inches.
- 1,000 " Irish, 1 to 2 feet.
- 10,000 Larch, European, 4 to 6 inches.
- 20,000 " " 1 to 1 1/2 to 2 to 3 and 3 to 4 feet.
- 3,000 Currants, Red, Dutch and Grape.
- 2,000 " Victoria or Houghton Castle.
- 2,000 " White Dutch and Grape.
- 2,000 " Black Naples.
- 10,000 Gooseberries, Best Lancashire Varieties.
- 6,000 Raspberries Fastolf.
- 4,000 " Antwerp, Red and White and Magnum Bonum.
- 2,000 Plums, all the leading varieties, strong.
- 80,000 Pear Stocks, strong, 1 year.

Catalogues can be had on application.

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AGRICULTURAL WAREHOUSE AND SEED STORE,

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THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planter- and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

OF PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—Improved Scotch Ploughs for lapped furrows—Improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others Patent Corn Shellers, with awl without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes, Horse Powers, Threshing Machines, Thermometer Churn, Dash Churn, Corn Planters, together with almost every article wanted on the Plantations, Farm or Garden.

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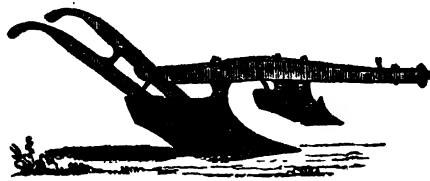
LEGAL DECISION.—The public are informed that after a full trial in the Circuit Court of the United States, Messrs. Edwards & Holman have been found guilty of violating the patent held by the subscribers for the Salamander Safe. The subscribers understand that Messrs. E. & H. now make and sell, under the name of "Improved Salamander Safe," an article filled with some other substance than the patented filling, and that the Safe thus made is not the true Salamander Safe, and has never been tested as such.

WILLIAM ADAMS & CO

Dec. 8, 1853

ly

THE BOSTON AND WORCESTER EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of mucky, with perfect facility;

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop;

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary;

4. The remarkably light drag of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufacture at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

Oyster Shell Lime.

THE subscriber has been induced, at the request of several of his friends in the farming interest, to enter into the manufacture of SHELL LIME, for farming purposes, and is now prepared to deliver at any of the railroads in Boston or Charlestown, the article in lots of from 10 to 100 barrels, at the low price of 36 cts. per barrel, or if taken at the kiln in Medford Street, Charlestown, at 30 cents. The money must be sent with the order.

Also, for sale, 100 barrels Thomaston Lime, in lots to suit purchasers.

Application may be made at No. 76 State Street, Boston, or at the Kiln, situated on Gould's Wharf, (so called) Charlestown.

JAMES GOULD, Agent.

IF The shell lime made into mortar, with four barrels of sand to each barrel of lime, will make a cement of better quality than the best of Thomaston lime, for cellar walls or stone work of any kind.

It also contains double the quantity of Phosphate of lime than is contained in stone lime, consequently for farming purposes is much the cheapest.

March 28, 1853.

Muriate of Lime,

A superior article for top dressing Grass Lands, put up in barrels and delivered at the railroads in the vicinity. Proportion about three hundred barrels to the acre.

March 21, 1853.

JAS. GOULD.

Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

IF Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,

Jan. 1.

Over Quincy Market, Boston.

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Ground Bone.

THE attention of the Scientific Agriculturists and others, is invited to a new article of ground bone. Bone manure has long been known to be the most fertilizing article in use, not excepting even guano, but there has always existed a difficulty in pulverizing it so that it will speedily and powerfully operate on the soil at a cheap rate. That difficulty has at length been overcome, and the article is now offered in its pure and most efficient state, ground to any desired fineness, and at the same time retaining all its ammonical and gelatinous matter, constituting the fertilizing qualities, which causes this manure to be so superior to all others; and another consideration in its favor is, that it can be furnished to order fresh ground, retaining all its virtue, at a very short notice, and at a reasonable rate. All orders addressed to the subscriber will meet with prompt attention, and all necessary information furnished by

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Super-Phosphate of Lime,

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FOR PUMPS, AQUEDUCTS, &c.

THIS material has been in use upwards of five years, and the sales are constantly increasing. The material is free from all the great objections to metal pipes.

Refer to Cushing & Mack, Lowell, J. N. & M. Barr, Nashua, Geo. M. Barrett, Concord, Mass., A. Littlefield, Milford, Mass. For sale at wholesale and retail by

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75 Kilby Street.

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SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

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Premiums were awarded to this Hive at the Mechanics' Fair in Boston, and at the Plymouth Co. Ag. Fair in 1853. It receives the unqualified approval of every Bee-Keeper who uses it. A circular containing a description, cut, &c., of the Hive, sent to any address, if a request is accompanied by a single letter stamp. All communications addressed to

HENRY EDDY, M. D., North Bridgewater, Mass.
Jan. 7, 1854. cow3m

Imported Suffolk Boar,
BULRUSH.

The subscriber now offers the services of his Suffolk Boar, BULRUSH, (to those who wish to improve their Stock.) Bulrush was imported last spring, and is now about one year old. He is remarkably vigorous, and a superior animal. He will be kept for the present, at my stable, near the Depot, Concord, Mass.

Dec. 17, 1853.

11"

JOHN RAYNOLDS.

Wanted,

A THOROUGH bred Farmer and Gardener, to take the charge of a farm situated 15 miles from the city; one who is well acquainted with his business, none other need apply, address No. 27 Tremont Row.

Jan. 21, 1854.

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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, MARCH, 1854.

NO. 3.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR MARCH.

"MARCH various, fierce and wild, with wind-cracked cheeks."

OF ALL the months in the year, MARCH is the most unamiable and unmannerly. It not only pinches with cold, but smites with heat; blows your coat into ribbons, pelts with hail or blinds with driving snow, or drenches with the cold and pitiless rain. Then comes the sun, slanting soft and cheerful rays upon the garden, encouraging a daring crocus or primrose to look out from the withered leaves and grass; but ere they can congratulate each other upon their new creation, a cruel snow storm stifles their pleasant words. There is no confidence to be placed in MARCH—you must take it as it comes, put on your philosophic cloak, and declare that you enjoy it, let it be what it will.

But Nature, though indulging in these rough sports, is still true to her great purposes. "The sap is alive in the seemingly sleeping trunks that everywhere surround us, and is beginning to mount slowly to its destination; and the embryo blooms are almost visibly struggling towards light and life, beneath their rough, unpromising outer coats—unpromising to the idle, the unthinking, and the inobservant; but to the eye that can see, bright and beautiful, in virtue of the brightness and the beauty that they cover, but not conceal."

As spring opens to us, so come the pleasant cares of the season, but not yet many in the garden or field. But there are appropriate duties which cannot be neglected without loss and inconvenience.

CARTIN OUT MANURES. Though we strongly object to placing manures in small parcels in the

fields, if this operation is left until April, it must then be done when the other duties of the farm have greatly multiplied, and when, if it is necessary to pass over the grass fields, they will be much injured by the wheels and feet of the team. In overhauling and mixing the heaps, though something of their strength is lost by it, yet they will be benefited by the more intimate mingling of their component parts. It is a good plan, then, while the ground is still frozen, to haul the manure to the fields which are to be sowed or planted; but it should be dropt in one or more large, compact heaps, and immediately covered with loam, or waste hay or straw. The sun and wind, at least, should be kept from it. In this position it will be convenient for spreading immediately before the land is plowed.

CELLARS—OUT-HOUSES.—This month affords opportunity, too, for a thorough removal of decayed vegetables from the cellar, sorting the potatoes for planting, examining the casks, tubs, or whatever vessels are to be used, and to have a general cleaning not only of the cellar, but of all the out-buildings. The poultry house, in particular, will need the scrutiny of the master's eye, as there will be few eggs where filth and vermin abound.

CLOVER SEED.—Where lands were laid down to grass last summer or autumn and clover seed omitted, it may now be sowed with good results. If scattered on a light snow you can distinctly see it, and get it evenly spread.

PLASTER.—One or two bushels per acre, of plaster, sowed on pasture lands or on clover fields will have a fine effect, and probably much more than pay the cost.

IMPLEMENTS AND TOOLS.—If these were all put in order last fall, very well—but let a timely examination be made.

STOCK.—Young cattle require especial care during the first year; a short allowance of food of a nutritious kind, and exposure to the fierce changes

of March will not only make them lean, but have a tendency to generate disease.

SHEEP.—Feed them on sweet clover hay, an occasional mees of roots cut fine, of corn, or beans, and allow them to browse pine and hemlock branches, and they will repay it all with liberal interest, by clipping time. It is important that they can go in and out of the barn as they please.

MILCH COWS.—They will give you no brimming pails in June if neglected now.

BREEDING SOWS.—Give them plenty of room, and feed so as to keep them in thrifty condition, but not to fatten. Before dropping their pigs, throw them a handful of scraps, a shin of beef, occasionally, and add a little more salt than usual to their swill.

FRUIT AND SHADE TREES.—Whatever is intended to be done in the way of planting fruit and shade trees, shrubbery, hedges, &c., should be arranged for now, as omitting this until the time for transplanting arrives, has prevented thousands from the enjoyments and profits of good fruit and refreshing shade. One cannot afford to stop and plan, and decide, when the buds are bursting and the fields are lifting up their hands for his help! Ho will not leave his plowing now, but another year—ah, another year! plants may then be springing from own grave, and the opportunity for doing for his posterity what had been done for himself, is gone! Delays are dangerous.

ABOUT THE CAMEL.

The want of pastures and fresh streams is very unfavorable to cattle, but the camel makes amends to the Tartars of the Ortoos for the absence of the rest. It is the real treasure of the desert. It can remain fifteen days or even a month without eating or drinking; and however miserable the country, it always finds something to satisfy it, especially when the soil is impregnated with salt or nitre: plants that other animals will not touch, brambles, or even dry wood, serve it for food. Yet little as it costs to keep, the camel is more useful than can be imagined out of the countries where Providence has placed it. Its ordinary burden is seven or eight hundred weight, and thus laden it can go forty miles a day. In many Tartar countries they are used to draw the coaches of the kings or princes; but this can only be on flat ground, for their fleshy feet would not permit them to ascend hills and draw a carriage after them.

Notwithstanding this softness of its foot, however, the camel can walk over the roughest roads, stones, sharp thorns, roots of trees, &c., without being hurt. But if obliged to walk too far, the real sole of its foot wears out, and the flesh is laid bare. The Tartars, under such circumstances, make it shoes of sheep-skin; but if after this the journey is still much prolonged, the creature lies down and must be abandoned.

There is nothing the camel dreads so much as a wet and marshy soil. When it places its foot on mud and finds it slip, it begins to stagger like a drunken man, and often falls heavily upon its side.

Every year, toward the spring, the camel loses its hair, and it all goes to the last fragment before the new comes on. For about twenty days it is as naked as if it had been clean shaved from head to tail; and then it is extremely sensitive to cold and rain. You may see it shiver all over, like a man exposed to cold without clothes. But by degrees the hair grows again; at first it is extremely fine and beautiful, and when it is once more long and thick the camel can brave the severest frost. It delights them to march against the north wind, or standing on the top of a high hill, to be beaten by the tempest and breathe the freeing air. Naturalists have sometimes said that camels cannot live in cold countries; but they could hardly have meant to speak of Tartar camels, which the least heat exhausts, and which certainly could not bear the climate of Arabia.

The fur of an ordinary camel weighs ten pounds; it is sometimes as soft as silk. That which the entire animal has under his neck and along its legs is rough, tufted, and black; but the hair in general is reddish or gray. Tartars do not take care of it, but suffer it, when it falls off, to be lost. In the place where the camels feed you may often see great bunches of it, like old rags, blowing about, and sometimes, in the hollows and corners of the hills, large quantities will be drifted by the wind. But it is never picked up, or only a small portion of it, to make a coarse sort of sacks and carpets.

The milk of the camel is excellent both for butter and cheese: the flesh is tough, ill-flavored, and little esteemed by the Tartars. They make use, however, of the hump, which they cut in slices and take with their tea.

It is said that Heliogabalus had camel's flesh served at his banquets, and that he was especially partial to the food. Of this latter dainty, which the emperor had the glory of discovering, we cannot speak; but we can affirm from our own experience, that the flesh of the camel is detestable.—*Huc's Journey through Tartary.*

KICKING HORSES.

MR. EDITOR:—It occurred to me that a receipt published in your paper for the cure of kicking horses, might be of much service to persons afflicted with such dangerous animals. The operation for cure to be commenced as follows, to wit: Put on a headstall or bridle, with twisted W. or twisted straight bits in the mouth of the horse to be cured, then put on a common back-saddle, with thill lugs, or any strap or girth, with loops on either side of the horse, is equally good; then buckle a pair of long reins, open in the middle, into the bits, and pass them through the thill lugs or loops; one to each hind leg, above the fetlock joint, there make each rein fast to the leg, allowing sufficient length of rein for your horse to walk or trot, as the operator may think proper. Every thing complete, you will have the animal commence the operation of kicking; the first will be a smart kick, the second lighter, and so on till your horse cannot be made to kick any more. By the above method many now worthless horses may be made valuable.—*Maine Farmer.* ●

☞ Trust him little who praises all—and him less who censures all—and him still less who is indifferent about all.

For the New England Farmer.

MONTHLY FARMER FOR FEBRUARY.

Forty-eight pages a month make five hundred and seventy-six a year—a large volume for one dollar. But books, like watches and jackknives, must not be valued by bulk alone. A large knife, a fine-looking watch and a big agricultural paper, may be made so carelessly, and of such improper material, as to be poor property at any price; unless they serve to gratify the first indefinite longings of the boy for a knife, of the youth for a watch, and of the farmer for a paper. As respects agriculture, may we not hope that she is putting off “childish things”—that the demand for cheap publications is giving place to a requirement of ability and talent? But how shall these be secured without remuneration, and how remunerated without the means? A reasonable compensation for the labors of correspondents is as justly part of the expense of publishing a paper, as are the bills of the printer and paper-maker. Agricultural publishers, therefore, who make no provision to reward any other scientific investigation, practical experiments, and instructive essays, than such as may be furnished by a single editor, have obviously not fully “counted the cost;” nor have those subscribers who expect a properly conducted agricultural journal, to be furnished at the price of the cheapest second-hand story paper. The literary man or the politician, would hardly keep posted up without his four or five dollar Quarterly, the writing of every page of which is well paid for, and thus the best talent secured; and we farmers need something of the Quarterly in our agricultural journals—and to secure this we must be willing to pay a little more than the cost of the paper, ink and type on which they are printed. Unless we are disposed to do so, I am afraid that some of those writers to whom we are indebted for so many interesting and instructive articles in the *Farmer*, will feel less obligations to continue their labors. Any one who will look over the contents of the February number, with me, will I think agree that we cannot well part with any of these, our teachers.

BUTTER.

Valuable extracts of a Report of a committee of the Rhode Island Society on “Butter and Cheese.” A communication from Berkshire gives the result of experiments with the milk of five cows in June and September, by which twenty-two pounds of milk were required for a pound of butter—a long chalk behind the four-quart heifers of Framingham.

“FARM FENCES.”

An article so full of facts and suggestions, that all who have fences to build or repair in the Spring, will be likely to read it over again, before commencing operations.

FARMING.

The first number of a series of articles on “Farming in New England,” although occupying only one-half a page, is “a model” in form and finish. In his brief enumeration of the elements of English farming, capital is omitted. I had supposed this to be an item of such importance, that all comparisons of the agriculture of Great Britain with that of other countries, particularly new ones, would illustrate the importance of capital,

as well as of science, to her agricultural operations. Especially if an estimate be correct that was made some ten years since by one of her own associations, that over \$1,600,000 worth of manures were annually imported into the country, and that three hundred vessels were at that time employed in the guano trade alone. Two other articles may be alluded to here, that will not be likely to escape the eye of any farmer into whose hands this number may fall—one, an essay on the cause of “Exhausted Lands,” and the other, “Franklin County Premiums,” give particulars of several instances of successful farming.

GARDEN.

“What a garden should be,” and what a garden can do, is here very ably discussed.

DOMESTIC.

“The way to make a wife cheerful,” will undoubtedly be read by some who have cross ones, and my opinion is, that it will do them good.—Lime water recommended for “The Preservation of Eggs.”

FRUIT.

Success of the “Dix Pear on quince.” Origin, character and figure of the “Danvers Winter Sweet Apple.” Shortening in “Peach Trees,” recommended and illustrated.

MEETINGS.

The Winter is the season for meetings, and meetings the occasions for speeches. But how wonderfully are one's auditors increased when a speech addressed even to a large room-full of listeners, is spread upon the pages of the *Farmer*! Study well your speeches then, for the eyes of tens of thousands are upon you. The February *Farmer* has reports of the two first Legislative Agricultural Meetings; of a meeting of the State Board of Agriculture; of the Concord Farmers' Club; and of the Vermont State Agricultural Society.

SWAMPS.

Very circumstantial, business-like and encouraging details of the expense and income of a reclaimed swamp. There is something expressive in that word *swamp*, it speaks right out; and why so many should try to get round it, by using “wet meadows,” “low pieces of ground,” &c., I don't know.

SCIENTIFIC.

A discussion of the question “Will dry Gypsum absorb Ammonia?” and an article on “the Atmosphere and its effects on Animal Life.” Reasons for the caution, “Don't pull off the Suckers” from corn.

STOCK.

When the thermometer is at zero, and hay at the “bleeding point,” farmers naturally think much of the animals dependent on them, and all such experiments as are detailed in “Feeding Stock,” are carefully considered. Those of us who are neither able nor willing to give a hundred dollars for a calf of any foreign breed, will experience a feeling of satisfaction, on reading Mr. Proctor's opinion of our native cattle, expressed in his “Address.” “Stabling and Feeding Cows in Winter,” with the article immediately following it, are answers to questions on the proper management of these noble animals. We then find an article headed “Horses Frozen or Starved;” a pic-

ture of an English prize horse, with remarks on the Suffolk breed; and a recipe for "Straightening steers' horns."

VARIETY.

Two articles advocating the establishment of Model Farms; two on Farming by steam, one by an English paper, the other by Mr. Durand, of Derby, Ct.; an article to prove that shade is as good as manure for poor land, is written by Mr. Croes, of Hoosic, N. Y. There may be great virtue in shade and, for ought I know, in moonshine too; but at any rate the shade theory is "nothing new." "Farmers in Public Places," is an apology for farmers that do not speak in public, and would answer, "without material variation," for those who do not write, but I cannot see what good it will do in either case. I fear it will do harm. Are farmers entitled to the plausible excuses for refraining from participation in public discussions of agricultural topics, which this article is too well calculated to furnish them? Look at the one hundred and nine farmers in our legislature, and then at their reluctance to take part in their weekly discussions even of topics which involve the most ordinary practical knowledge of farming. The glorious faculty of speech is one of the choicest gifts of our Maker. And how far this talent may be "hid in a napkin" without incurring the guilt of the Slothful Servant, each one must decide for himself.

A READER.

Winchester, Feb., 1854.

AGRICULTURE, SOUTH.

Some of the people at the South met at Columbia, South Carolina, on the first day of December, 1853, to discuss the interests of agriculture. It appears to have been an adjourned meeting of the "Agricultural Association of the Planting or Slaveholding States." The names of several distinguished persons are included in those mentioned, and the meeting appears to have been an energetic and harmonious one. Several addresses and speeches were given on popular and interesting subjects; one by Dr. John BACHMAN, on the "Natural Sciences as connected with Agricultural Improvement;" an Essay on the "Culture of Fruit at the South," by J. VAN BUREN, of Georgia; an Address by H. W. RAVENEL, on "Botany and Agriculture;" another by ISAAC CROOM, of Alabama, on the subject of "Clover and Grasses at the South;" and another by Dr. A. A. LIPSCOMB, of Alabama, on the "Progress of Southern Mind;" and others on "Native Trees of the South, and Landscape Gardening," "Black Seed Cotton," "Sea Coast Crops," on the "Treatment of Slaves," the "Cotton Trade," &c.

They passed a set of resolutions the gist of all being in the 5th, as follows:—

Resolved, That it is the opinion of this meeting that the Association should, at its next annual meeting, or so soon thereafter as the amount of subscription shall amount to \$500,000, memorialize Congress and the Legislatures of the Southern States, for the purpose of obtaining their aid in the completion of a work [that is, the establish-

ments of a Central Agricultural College] which involves so much of the welfare, not only of the South, but of the entire confederacy."

These remarks of progress among our Southern brethren are encouraging, and if their efforts are steadily pursued will soon have an important influence upon southern society as well as upon the face of the earth about them.

For the New England Farmer.

CARROTS—ROSE BUGS—FERTILIZERS.

MR. EDITOR:—Sir,—I usually make a record of anything which I discover in your journal, or elsewhere, likely to prove of practical value to myself or others in Agriculture or Horticulture. I had supposed that I had obtained valuable information from your article, "Roots vs. Hay," in the April number, page 168, both as regards the relative nutritive qualities of different roots, and of herds grass and clover as compared with them, and also as to the advantage of feeding a horse with carrots, in place of corn, as detailed on the first column of page 169. It was a plain, straightforward and easily-understood statement. But all this clearness of idea has been turned into a snarl, (which I must appeal to you to unravel,) partly by your remarks following, and by a subsequent article in the same April number.

On page 168, in 1000 parts mangel wurtzel, 136 parts are stated to be alimentary matter.

On page 168, in 1000 parts carrot, 98 parts are stated to be nutritive matter.

On page 169, on 8—12 line from bottom, the mangel wurtzel is stated by you to be "less nutritive" than the carrot. Was the "printer's devil" in fault? But the component parts of starch, gluten and sugar, foot up in each respectively 136 and 98.

But further, taking the nutritive proportion of carrots to be 98 in 1000 parts and of herds grass from 89—100, as stated on page 168, I infer that carrots are at least as nutritious as herds grass. I accordingly weighed my carrots this month, when the weight is probably less than when they were first housed, and find they weigh 43½ lbs. per bushel, which at a yield of 350 bushels an acre, would give a little more than 7½ tons per acre to be compared with 3 tons (a heavy yield) of herds grass per acre. If herds grass is no more nutritive, the carrots are well worth the extra labor, especially if you frequently get no more than 2½ tons herds grass per acre, which is just ⅓ the 7½ tons per acre of carrots. But on page 183 of the April number, Mr. Proctor says carrots are generally placed at "half the price of hay," "as feed for stock," and that "perhaps their true value will be found between ⅓ and ½ that of good hay, according to the purposes for which they are wanted." Now I had supposed according to the statement of page 168, that they were at least as nutritious. And on page 184, Mr. Brooks, of Princeton, makes 3 lbs. of carrots equal to one pound of good hay. From page 169, and my own weighing of carrots, I should infer that 87 lbs. of carrots would keep a horse as well as 50 lbs. of corn; but Mr. Brooks, page 184, makes 3 lbs. of carrots equal 1 lb. hay, and 1 lb. Indian meal equal 4 lbs. hay; that is, 12 lbs. carrots to be equal to one lb. Indian meal!

Mr. Brooks, however, judges by the effects upon milk; but if the statement on page 168 is correct, and the nutrition of carrots is equal to that of hay, and if 3 lbs. make only as much milk as a lb. of hay, then it follows that $\frac{3}{4}$ of the nutrition of carrots goes to make flesh, and that cows will gain twice as much flesh while fed on carrots and give at the same time as much milk as when fed on hay. But is this so? Or which statement is the erroneous one?

Mr. Lincoln's calculation, as quoted by Mr. Brooks, page 184, I take to be an error of the printer, or of haste in the manuscript; for carrots, at 10 cents per bushel and 40 bushels to the ton, cannot be "ten times forty-four dollars the ton for carrots;" or if so, it does not follow that "you have \$4.02 as the value of one ton of carrots."

ROSE BUGS.

Three years ago last summer my roses were overloaded with rose bugs. Having seen it recommended to sprinkle the leaves of the bush with ashes when the leaves were moist, and having seen it stated that the bugs emerged from the ground during the early part of June, it occurred to me that a heavy coating of ashes to the ground above the roots, a little while before they emerged, might affect them; or the ley, as the ashes leached, might destroy them. I have so applied ashes for two seasons, knowing that, at least, they would benefit the rose bushes. My roses have been visited the last two summers by very few rose bugs; one, two or three being sometimes discovered on a rose, and many entirely free from them, which was a great difference from the swarms which infested them three summers since. But as one swallow does not make a summer; as I might have thus escaped, had I not thus used the ashes; as the world is full of "post hoc, propter hoc" reasoning, I wish that others, whose roses are thus infested, would make trial of this thing and report progress.

FERTILIZERS.

Is it not probable that the water in which vegetables have been boiled, contain no small proportion of the alkalies and salts known to exist in the ashes of vegetables when chemically analyzed? And would not this water, applied to growing vegetables, be a valuable fertilizer? I have often purposed to use it, but never have as yet. I notice that more than one man certifies that the water in which potatoes have been boiled, will kill lice on cattle if applied or rubbed into the hair. Is it not the potash of the potato which boils out? If true, it serves to recommend it as a fertilizer. Have any experiments been made with pearl ash (carbonate of potash) as a fertilizer? It is certainly cheap; or with aqua ammonia as a fertilizer, compared with guano, &c. &c. As the ammonia water of the shops is of strength enough to make, with ten drops in a tumbler of water, water quite as strong as one could well drink, I should suppose that 12 $\frac{1}{2}$ cents worth would make a hoghead of water stronger than it would do to apply to vegetation; and perhaps it might, \$1 for \$1, be worth as much, or more, than water in which guano has been dissolved.

Who has ever made trial with sulphurate of potash as a fertilizer, a small quantity of which, dissolved in water, gives powerfully the foetid odor of the strongest sulphur waters? Perhaps

for the mildew on grapes, the combination of the two, sulphur and potash, would do better, if the soil needs the potash.

I am not without strong suspicion that we have some valuable fertilizers within reach, which may be cheaper than guano, and, if mixed with each other, or with excrements of hens, may be as valuable.

Yours, respectfully,

LEWIS S. HOPKINS.

Northampton, Jan., 1854.

REMARKS.—We hope some of our intelligent correspondents, "who are trying all things," will reply to the inquires in this interesting article. As to our own discrepancies, we do not now recollect to whose analyses we referred in preparing the articles spoken of, and it is possible that those of different persons were consulted. There is scarcely any thing we need so much as a series of well-conducted analyses of the products of our fields; and even then, an approximation only can be made to the true value of the crop, because the same kind of crop, turnips or corn for instance, will vary considerably in their nutritive properties. These properties are varied by several circumstances, viz:—the kind of soil, the manures with which they have been fertilized, size of the plants, whether cut early or late, and also of location. The same kind of crop might vary considerably in these properties, where one portion grew on the north and the other on the south side of a hill.

CULTURE OF CRANBERRY VINES.

The following is Mr. TROWBRIDGE's manner of cultivating the cranberry vine. See his advertisement in another column.

The Bell variety or Egg shape is mostly cultivated in New England, and usually bears good crops as they grow wild—but when transplanted and cultivated, the berries are large and abundant, and bears large crops often after two or three years, from one hundred and fifty to two hundred and fifty bushels per acre—are hardy, and can be cultivated in any part of the United States.

The soil best adapted, is such as will keep moist through the dry season; they have been raised on land high enough to produce corn and potatoes with a wet substratum under the soil, or a clay and loam. They will not succeed well on dry, sandy, or land liable to bake or become hard in dry weather—but they will produce an abundant crop on poor swampy land that will not produce any other valuable crop, or any wet land after being drained. Dry ground should be plowed and harrowed smooth, in a swamp where a plow will not work; the turf or bog may be peeled off or burnt to get the weeds and grass out. They may be set in fall and spring, as early as the ground will admit until the middle of May. Moss, tan, or anything to retain the moisture would be beneficial around the plant after transplanting; a little sand around the plant fall and spring, will tend to keep the weeds out.

Planted in drills as you plant strawberry, cabbage, and other plants one and a half to two feet apart. At two feet apart each way, it will take

10,000 plants to the acre. Hoe them slightly at first, until the roots become clinched, and afterwards no other cultivation is needed, unless to keep out weeds and grass. The plants may be expected to run together and cover the whole ground in two or three years. They can be gathered with a cranbury rake made for the purpose, to be procured at the agricultural stores.

F. TROWBRIDGE.

New Haven, Conn.

CONCORD FARMERS' CLUB.

THURSDAY EVENING, FEBRUARY 9, 1864.

After the reading of the Journal of the previous meeting, the following question was discussed:—*Would it be for the advantage of the farmer to pay more attention to the cultivation of Indian Corn?*

Mr. DONN said if the present high prices continue, and the prospect is that they will, it undoubtedly will be for the interest of the farmer to give more attention to this crop; his opportunities to learn the comparative value between this and other crops, had been limited, as he only cultivated a garden, but he had received favorable impressions of the corn crop, and thought if he were engaged in farming, he should devote a considerable portion of his land to it, in preference to most others.

Mr. E. W. BULL said, the corn crop is well adapted to our climate and soils—nearly 100 bushels per acre had been raised in this town: it is a fine crop on which to prepare the land for other uses. This was Arthur Young's opinion. Another, and economical view of the case is, that it keeps our money at home—the man who raises his own bread-stuffs has this important item at first cost, and loses nothing in it by transportation and exchanges; he considered the leaves and stem of the plant a sweet and nutritious fodder, but it ought to be preserved with care, that it may retain its best properties; it loses in value by being exposed late in Autumn. He had seen it stated that corn cut at the root just when the kernel is glazed, makes better bread, and that the fodder may then be saved in excellent condition. Mr. Ellsworth had found that at about the time when the kernel is becoming hard and changing its color, it takes up the saccharine qualities of the plant. There is, undoubtedly, a difference in the properties of the various kinds of corn, some containing largely of oil, and other kinds of starch and sugar: therefore, one kind, would be most suitable for fattening purposes, and another for the family. He thought the crop not so exhausting as a crop of potatoes, or some other crops. Cutting the top stalks would injure the grain, as every leaf has its office to perform in perfecting the seed. He thought salt-petre a valuable manure for the crop.

Mr. JOHN RAYNOLDS said the corn crop was one of the most important in New England, and that it ought to be increased. It is, perhaps, the most

sure and profitable crop we cultivate. He thought deep plowing and high manuring were necessary, and that with these, and careful cultivation, the amount, per acre, may be materially advanced throughout the State. But he would not cultivate in the old way—would not hill, and would plant thicker; instead of 3 $\frac{1}{2}$ and 4 feet, would plant 3 $\frac{1}{2}$ and 2, and by shading light land a little, suppress weeds at the same time that he multiplied the number of ears. It has been stated in the Plymouth county reports that they have succeeded in raising 130 to 140 bushels per acre, under this mode of cultivation. He thought different kinds of corn quite unlike in their nutritive properties, but did not know which is the best. The stover on an acre he considered equal to the average crop of English hay, say one ton per acre; on this point he had asked the opinion of several intelligent farmers, and they agreed with him; he said, however, that much depends on the kind of corn raised, and the manner in which the fodder is preserved. In feeding out the fodder, the butts may be cut, thrown into a hogshead, and where three or four gallons of hot water are thrown over them, they will become quite soft in the course of a few hours. The cask should be covered as tightly as possible with boards and a blanket. After sprinkling a little salt and meal over the steamed mass, the cattle will readily eat the whole.

Mr. JACOB B. FARMER, said the yellow corn contains more oil than any other kind—he would not run exclusively into the corn crop, but would cultivate others, and give the whole more attention. He thought it more exhausting than potatoes—where potatoes grew on the same field with corn, the succeeding crop was the best on the potato ground. Corn, cut up at the roots and shocked, will be four pounds lighter in the bushel than that allowed to stand and ripen on its roots. It makes sweet bread, but the chit shrinks: but when cut the fodder is worth more. Topping corn while the leaf is green is injurious to the grain. He had noticed that if the season was unfavorable for corn, there were usually good crops of the lesser grains;—plants 3 $\frac{1}{2}$ by 3 feet, and with 10 ox loads of manure to the acre, on light sandy soil, gets 40 bushels of corn, as an average crop. In taking up grass land, if it is a clayey soil, he would plow in the fall, but if light land, plow late in the spring in order to get a good supply of grass and quick fermentation. Would spread the manure and plow it under three inches.

ELIJAH WOOD, Jr., considered corn one of the best crops, as it was the surest—it seldom failed by frost, insects, or other causes. For getting land into good condition for succeeding crops, it is excellent. Can raise corn much cheaper by planting large fields, as there is considerable saving in fencing, plowing and hoeing. The stover will nearly pay the cost of cultivation, the corn shades the

ground so much, that after the last hoeing, very few weeds start. Plants $3\frac{1}{2}$ by 3 feet, 3 stalks in a place, does not hill, and gets 40 to 50 bushels an acre. Thinks it a bad practice to pull out suckers. The potato crop is more exhausting to the land than the corn.

On this latter point, a desultory discussion ensued in which several gentlemen engaged, but, with one or two exceptions, all agreed that the potato crop was more exhausting to the land than the corn. Our report is a meagre one, not embracing a quarter part what was said on the subject.

For the New England Farmer.

FARM FOR EXPERIMENTS.

MESSES. EDITORS:—In an editorial article, and a communication from Essex, in the *Farmer* of 21st inst., the importance of establishing an experimental farm in each county of the Commonwealth is stated and vindicated by arguments which I should suppose would prove convincing to most minds. The agricultural societies have done a good work, they have accomplished what was chiefly in contemplation in their formation; they have called forth very general attention to the necessity and the practicability of improvements in every branch of the farmer's business; but do not at present employ the means of perfecting improvements in many branches. Most of the offers of premiums, look not beyond the labors of a single year, and when it is otherwise, when experiments are proposed which require several years for their completion, the terms of the offers often give the impression that the results of the last year's labor are chiefly regarded in making the award. The statements made by applicants to committees are almost universally complained of as imperfect and unsatisfactory. The manifest object of most of them is to secure a prize rather than to communicate any valuable information to the public. Impartial statements and directing information are to be expected only from those who make experiments with a special view to the increase of knowledge and usefulness, and who are not influenced by the trifling objects of a little immediate money reward or some evanescent reputation. Impartial statements would emanate from a scientific manager of a model farm, and it might be confidently expected that ere long they would produce more enlightened and united views on the leading agricultural interests, the preservation and application of manures, the manner and extent of drainage, the proper time, depth and frequency of plowing, and the economical management both of fields and herds.

I should regard it as indispensable to connect with an experimental farm, a school where youth would be instructed in those branches of science which have direct connection with rural pursuits, and where they would also be exercised in manual labors, without experience in which they could never become qualified even to superintend a farm to much valuable purpose.

There seems to be a very general impression that we ought to have agricultural schools established; I rejoice in the evidence before us that so many intelligent men are now advocating the establishment

of one in every county of the State. Concerning the means through which it can be done, we have variant views. Some suppose calls upon our opulent citizens for donations might prove successful. The writer doubts whether many county schools will soon be established by the donations of rich men. The liberality of that class of men is well known, and has been productive of immense good, but I think all experience shows that when large sums are given for public purposes, they are disposed to place them in more dignified institutions than a county school. I think that each county might, and that the time has arrived when they ought to commence the foundations of an agricultural school. Annual exhibitions have attracted great attention, and are not likely to fall into neglect. Many offers of premiums have been framed with a special view to give attraction to the exhibition. Some of these could be safely omitted, and the sums so offered heretofore applied to an accumulating fund for the support of a school. It might prove the work of many years in some of the counties, but the desired result would ultimately be attained. And if the counties should appear earnestly engaged to accomplish so desirable objects, the hope would be reasonable that a wise legislature would do something in aid of their efforts.

M. A.

Pembroke, Feb. 10, 1854.

REMARKS.—We recognize in the above "an old hand at the plow," and tender thanks that, as the poets say, he has "tuned his harp" once more to this important theme. With the writer, we look to the *Counties*, to take the initiative in the great work of establishing the proper institutions for the instruction of our youth in agricultural knowledge. Let them invest their funds in a county farm, and there institute such inquiries and make such experiments, as they safely may in a careful and economical manner. Let the county shows be holden on, or in proximity of this farm, where all may on that occasion see the stock, implements, and improvements, whatever they may be. The people of the county interested in the advancement of agriculture, will thus compose a sort of examining committee, whose annual visits will increase and strengthen their interest in the enterprise.

The existence of such a farm, managed judiciously, would soon attract the attention of some of the wealthy and liberal citizens of the county, who would not suffer it to languish and die for the want of those funds which would sustain it, and the bestowal of which would prove a great public benefit, and confer upon them the perpetual gratitude of mankind.

This, to us, seems to be the plain path of progress in the right direction. Which county in the Commonwealth will claim priority in the noble work? Shall we hear from the men of the mountains in Berkshire, from the sandy fields of Plymouth, from the broad and fertile meadows which sweep away on either side of the Connecticut, or from

maritime Essex, or the old Indian Hills of Middlesex? It would be a noble emulation. We wish the contest were begun. Who will start it?

For the New England Farmer.

CUTTING SCIONS.

MR. FARMER:—As the season approaches for this interesting portion of every man's labor who owns or cultivates a farm or garden, some simple directions may not be uninteresting to many of your numerous readers. Many neglect cutting or procuring them, supposing they must be cut at a certain time and kept in a particular manner or they are worthless. It is quite time all such humbugs should be exploded.

Some ten years since I had the *variety fever* in fruit culture which has continued with little abatement. I have procured and sent scions from and to almost every State from Maine to Missouri; have cut and distributed more than one hundred thousand. So I ought to give directions with more confidence than a "raw hand." After a tree becomes dormant and the leaf falls in Oct., scions may be cut at any time before the buds again start, which here for seeded fruits is about the last of March or in April. In fact there is no difference in time so far as relates to the value of the scions—the only trouble is to keep them. This may be done for six months or six years, and have them perfect. Scions cut in the fall may be buried in any dry soil in orchard or garden until wanted for use. When one is collecting them during the winter, the best way is to select some place where snow will not be affected by thaw, and bury them in snow as received, taking them out where the snow begins to melt in the spring and transferring them to the ice house or cellar.

When one cuts scions on his own premises for use or distribution, the best time is here generally the last of March or early in April, as they are then as dormant as in the winter, and less time and trouble to keep them.

KEEPING SCIONS.—The only secret is to keep them cool and damp; not wet. The best course I have ever tried is to lay them on a brick floor in a cool cellar, and cover with thick damp sacking—if the sacking becomes dry, sprinkle it. In this manner they are kept in perfect order from March until June, and easily taken as wanted. Many plans are recommended, some troublesome and others unsafe. I once had more than 5000 packed in damp pine saw-dust in a warm cellar, and though apparently in perfect order, they became worthless.

TRANSPORTATION OF SCIONS.—When sent in such quantities as to send by express, the winter is the best time—but if sent in the spring, they can easily be sent 1000 miles or more by being packed in damp moss which is well understood by those who sell scions, so that any one wanting can order with the assurance of receiving in perfect condition. Amateurs who wish *sorts*, can, at the present low postage, get them by mail. Get a piece of oiled silk, which you can do at any dry-good store—enclose it with two or three stamps to your correspondent with directions to wrap the scions in the silk; in this way they may be received from any part of the United States.

DRY SCIONS.—Scions that have become dry (not injured by water) may be buried in ordinary gar-

den soil one or two weeks and become perfect—which if inserted without may be worthless. This is also the true mode of treating young trees, from dry transportation. Bury the whole tree one or two weeks before planting, and a healthy vigorous growth is obtained, instead of a sickly and slow one. C. GOODRICH.

Burlington, Vt., Feb., 1854.

REMARKS.—Will Mr. G. accept our thanks for the above article, and send us the other which he says in a private note "some one should write on pruning orchards in our cold New England climate." That important operation is still very imperfectly understood, notwithstanding so much has been said on the subject.

MAINE STATE BOARD OF AGRICULTURE.

This institution seems to have started rapidly into vigorous existence. Col. HENRY LITTLE, of Bangor, is President, and EZEKIEL HOLMES, Esq., editor of the *Maine Farmer*, is Secretary. If the Board is made up of such men, it will plow a deep and permanent furrow into the prejudices which exist, and make many a field smile in beauty which has heretofore presented but a barren and chilling aspect. The men of Maine—and especially the farmers—should come up to their help with the most liberal views; they should give tone to legislative opinions, and assure that body, that in promoting the objects set forth by the Board of Agriculture, they are giving shape and direction to the will of the people. Whatever the State may do to benefit the people, will replenish her treasury, and who can doubt that to complete the survey of the State, already commenced, will result in such discoveries of coal, or the precious metals, as shall a thousand times repay the cost? Or, if she institutes experiments, and shall show how each acre shall produce one more bushel of grain, or each cow one more quart of milk, will not that increase the taxable property of the people, and thus add permanent wealth to the State?

Among the principal points at which the Board aims, is,

1. To introduce the study of agricultural science into every school in the State.
2. To endow a seminary in each of the 13 counties in the State for the study of the higher branches of the science.
3. To urge the legislature to cause the Geological survey of the State to be completed.

HAMPSHIRE AGRICULTURAL SOCIETY.—Officers for 1854.

ALFRED BAKER, President.

J. W. BOYDEN, Secretary and Treasurer.

Hereafter, their Fair is to occupy two days, instead of one.

HUSBANDRY ADAPTED TO MAN.

BY J. N. BAGGE.

No one who has carefully observed the ingenious mechanism of man and the multiform works of the husbandman, can fail to notice the adaptation of each to the other. The cunning hand, the strong arm, the broad shoulders, the robust body and the active mind, all require exercise, and each in proper proportion.

Other pursuits call into action only parts of the human frame. The right arm of the blacksmith by undue exercise becomes strangely disproportioned to his left. The manual dexterity of the manufacturer overbalances the powers of his mind. The mental activity of the professional man exceeds his physical endurance; so of most other vocations.

The rule is, that other things being equal, that pursuit which most effectually calls into use the greatest number of the faculties, which most regularly and evenly exercises the limbs, muscles and other organs, is the best adapted to man.

Where in the whole range of man's employments can an occupation be found so suited to this object as agriculture, or where a more perfect specimen of humanity, than a healthy, intelligent farmer?

God knows the fitness of things better than any of his creatures: hence, He ordained agriculture. He gave man, his rural commission, He placed the first human pair in a garden, and He directed that happiness and health should attend its pursuit.

To the pale, sickly and feeble, of every class we would say,

"Would you be strong, go follow up the plow;
Would you be thoughtful, study fields and flowers;
Would you be wise, take on yourself a vow
To go to school in nature's sunny bowers;
Fly from the city, nothing there can charm,—
Seek wisdom, strength, and virtue, on a farm."

For the New England Farmer.

CIDER AND TOBACCO.

These are among the products on many of our farms for which encouragement is offered, and towards the production of which, much labor is expended. Can this be done with propriety?—Orchards are recommended as the most productive occupation of land; hundreds of trees are annually set, for the purpose of producing cider—and will continue to be set, so long as the public demand, and use it. So with tobacco. If I am not misinformed, some of the most profitable crops, grown in the valley of the Connecticut, are found on the tobacco fields. What care I, says the grower, who is injured by its use, if I get my money for the crop! If I do not grow it, some one else will—and I may as well have the profit as to send it to Cuba, or elsewhere out of the country. If I do not mistake, a large part of the tobacco-smoke that is daily circulated, and puffed in our faces to the great annoyance of decent people, proceed from Spanish cigars, made of Yankee tobacco. If any one requires proof of this, let him stop a few minutes in a grocery store where loungers assemble, and then go home, and his clothes will give the testimony.

January, 1854.

A MODEL POULTRY HOUSE.

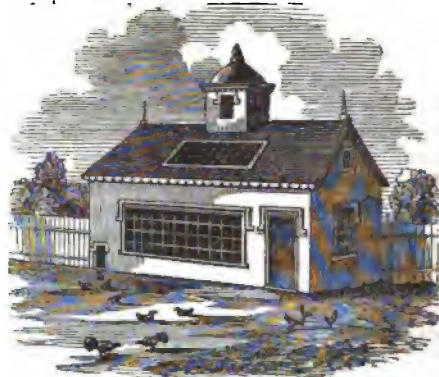


FIG. 1.

In consideration of the profits arising from the keeping of Poultry, as well as the very general interest now taken in this delightful feature of the Farm, we have devised and had engraved the beautiful *Poultry House* represented above, and which we think will be acknowledged by all a Model House. The front should face the South, and the yard placed on either side, as taste or convenience may suggest; but so long as the ground is uncovered the fowls would enjoy a range on the south, and would be benefited by coming to the ground. After snow falls they will rarely leave the building.

A house of this description say 8 feet wide, by 12 feet long and 8 feet high—will accommodate from 20 to 30 fowls, and that is as many as can profitably be kept together, unless they have a wide and free range.

A portion of the yard should afford a dense shade of low trees and shrubs, to which the fowls may retire in hot weather, where they will burrow and spend much time in the most social and agreeable manner.

Figure 1, is a perspective view, and beautiful it is. Fig. 2, is the ground plan; *a*, is the doorway; *b*, the grain chests; *c*, the feeding boxes; *d*, the stairway to the loft; and *e*, a small opening for the fowls to pass out and in. The opening at the left of *a*, is the door-way from the entry into the main poultry room. Directly over the

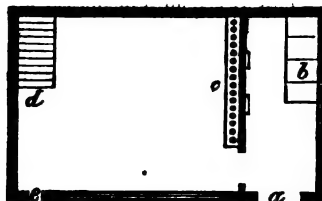


FIG. 2.

feeding boxes there may be placed another row for nests, 3 or 4 feet from the floor, which may be examined through a slide from the entry without entering the main room. These boxes may be

darkened and made a little secret, by placing a shelf along in front of them and nailing a board edgewise against it; and as Miss Biddy, like some others of the gentle sex, is a little prudish, at times, it is well enough to indulge her fancies. On a floor under the window in the roof, the fowls will find a warm place in which to congregate in the winter.

Now that we have furnished the accommodations, we will copy from an English paper some excellent rules as to feeding and treatment.

"The floor should be cleaned at any rate once a week. It should be sprinkled with saw-dust, ashes, peat, or—best of all—peat charcoal. The nests should be lined with moss, heath, or short straw; neither long straw nor hay should be used—the darkest nests are preferred by the hens." *A Poultry Yard* should contain: 1, A grass plot; 2, fine gravel; 3, slacked lime, or other calcareous matter; 4, ashes kept dry by being placed under cover; 5, pure water. *Eggs*: Hens of the best varieties will lay in a season from 160 to 210 each, per hen. *Breed*: Evidently the best are the Dorking, "fowls which have black legs are the best for roasting, while those with white legs are the best for boiling." For laying, the Dutch every-day layers or the Spanish are excellent. *Sitting*: Having observed that the earliest chicks in the neighborhood were every year in possession of the same person, we were induced to ascertain the cause. We found that the eggs were not taken from the nest, and, as soon as she had about 13 she commenced to sit. Fowls indeed, in their native haunts, never lay more eggs in a season than they can hatch. Those who keep Dutch every-day layers, or the Spanish hen, should keep three or four Dorking hens to do the hatching business. Remember that no success can be expected from poultry keeping—1st, if their houses be damp, cold, unclean, or badly ventilated; 2nd, if the food they eat does not closely approximate to that which they obtain in a state of nature, viz: a mixture of vegetable and animal food; 3d, if the water they drink be stagnant, the drainage of the manure heaps, &c.; 4th, if the strongest and hand-somest be not bred from.

DISEASES AND REMEDIES OF POULTRY.—Provide if you can a separate place for the sick.

Chipping.—This singular and fatal disease of the digestive organs often proceeds from exposure to wet or cold. Remove the chickens to a warm and comfortable place; if they appear very ill put them into wool or flannel; add to half a pint of thick gruel a dessert spoonful of linseed oil, give half a tea-spoonful in the course of the day.

Flux.—Is generally produced by too much soft food; change of diet therefore is the best remedy, while rice, a little hemp seed, and whole wheat, are excellent.

Gapes.—Give every other day from five to ten drops of spirits of turpentine, mixed with barley meal.

The Pip.—Wash the mouth twice a day, with a mixture of equal parts of tincture of myrrh and water; a more simple remedy is to rub some common salt on the sore place.

The Roup (the Gargle in Geese).—This is one fatal result of ill-feeding and want of cleanliness.

Medicine can do little; give one grain of antimonial powder twice a day in a little mixed food.

Vermis.—Keep them clean; provide and keep dry dust for them to bask in; and also fresh fine gravel for the sake of the small pebbles which they need for their gizzards.

AGRICULTURAL STATISTICS OF FRANCE.

The agricultural population forms three-quarters of the inhabitants of France. There are 29,000,000 of individuals domiciliated out of the cities.

The surface of the cultivated lands yields, on an average, \$1,030,530,600 (dollars), or \$48 per 2½ acres.

The expenses of culture amount to \$601,252,200, that is \$28 per 2½ acres, which are paid as wages to the laborers, or earned by them on their own land.

This sum divided among six millions of agricultural families, gives each of them a yearly income of \$100, which allows them each about 27 cents a day to spend.

The most important article of expenditure is corn. At 9 bushels an individual, it requires 39 or 42 for the entire year. This is an expense of 42 to 46 dollars a year, according as corn is worth 3 or 4 dollars. There remain for the other necessities of the family at the most 58 dollars.

When in years of scarcity corn is worth 5 or 6 dollars the hectolitre, (about 3 bushels,) the food of five persons, in bread only, amounts to 60 dollars or even 84 dollars, which absorbs within 16 dollars the whole income of the year.

To procure only a pound of meat a day for the six millions of families residing in the country, and consisting of 29 millions of individuals, it would require 2,190,000,000 pounds, that is to say double the total actual consumption of France.—*Boston Post*.

SOMETHING NEW—VEGETABLE PEARS.—The *Galveston News*, Texas, notices the production of an article of food, which he calls vegetables, grown in that State. They were raised on the plantation of a Mr. Compton, and are about the size and shape of very large pears. We understand they are a tropical production, being brought from Havana. The pear is planted in the ground, and produces a vine of most luxuriant growth, running a great distance, and requires some support to keep it from the ground. It is said to make an excellent arbor. The fruit grows pendant from the vines like gourds, and is nearly white. This vegetable is boiled whole, and then sliced and eaten with butter, the taste resembling that of green peas. It is said to be very prolific, two or three vines yielding enough to supply a common family. Whether it will succeed well in Texas, which is about the 30th degree of latitude, is yet a matter of experiment. Indeed we cannot hear that it has ever been raised by any one in Texas except Mr. Compton.

MIDDLESEX COUNTY SOCIETY.—The Trustees of this Society will be duly notified of the time and place of holding their Annual Meeting, at which time it is desirable to distribute the Transactions of the last year, and which are not yet completed.

For the New England Farmer.

THE DOUBLE PLOW, AND HORSE HOE.

It was well said, at one of the late farmers' festivals, that the inventive genius of the country had turned to the relief of the wants of the husbandman, and that it almost seemed as if the farmer was to be buried beneath the mass of new machines and implements, which had been made to relieve him, in part, of the burden of his labor. All new tools, however, are not improvements. But the past year or two has brought into use two implements which, it seems to me, are particularly deserving of notice. I refer to the *Michigan Plow*, as improved by Messrs. Ruggles, Nourse, Mason & Co., and to the *Horse Hoe*, also manufactured by the same firm. I recollect, that in one of the past No.'s of your paper, you spoke in praise of this last implement, after witnessing an experimental trial of it. In your conclusions, as to the value of the implement, I agreed then; and promised myself to say a word in its favor, if deserving of praise, after a more protracted trial.

The Horse-hoe is designed to supersede the common Cultivator; and, after the trial of one season, I do not hesitate to say, is of far greater value. In my hands, the old Cultivator was of but little value. It was difficult to manage, from its sliding to the right and left,—frequently became clogged—and never did the work to my desire.

The *Horse Hoe* is free from these objections. I have used it this year, and have had neither the necessity nor inclination to remove my Cultivator from its winter quarters.

My corn field was so overrun with wild turnips that I was compelled to go into it while the corn was so small as to render it difficult to distinguish the rows. A common Cultivator, run under like circumstances, would have buried much of the corn. But I was enabled, with this instrument, (running steadily as it does,) so arranged, as to draw the earth from the hills, to cultivate the field so thoroughly, as to remove almost all the turnips. By running twice between the rows, in each direction of the field, so little of this pest was left, that I did not deem it necessary to follow with the hand hoe.

The second time of weeding, the implement was run in a similar manner; and after the field was finished with the *Horse Hoe*, so few weeds were left, that my two hired men occupied less than a day in performing the remainder of the work by hand. I am safe in saying, that after the second and third time of cultivating there was hardly a weed left undisturbed in the whole field, unless it grew among the stalks of corn in the hill.

It was my experience, and I think it will be found universally true in practice, that when the *Horse Hoe* is used, with the teeth so set as to throw the earth from the centre towards the rows, with a good walking team, the dirt will be so finely and thoroughly sifted in among the corn, that all small weeds growing there will be completely covered up, and the necessity of hand hoeing or weeding almost entirely prevented. I am inclined to think that manure may be covered, when not strawy, better by this instrument than by any other: better than by the Cultivator; because of its little liability to clog: better than by the harrow, because it pulverizes the soil beautifully, and leaves it light and in fine tilth—better than by the plow,

only because of its more rapid work, covering a greater breadth of surface. I shall try it in the spring for this purpose, without fear of being disappointed.

Yours, W. S. LINCOLN.

REMARKS.—We have no doubt this article will be read with a deeper interest by some, when they learn that Mr. LINCOLN does all the plowing and cultivating for a pretty large farm, with his own hands. He confirms the opinion we have heretofore expressed in regard to both the implements whose merits he has discussed. The mantle of the lamented Col. LINCOLN has fallen upon a worthy representative.

THE ASS AND THE LAMB.

"How hard is my fate!

What sorrows await,"

Said the Ass to the Sheep, "my deplorable state.

"Cold, naked, ill fed,

I sleep in a shed,

Where the snow, wind and rain come in over my head.

"All this day did I pass

In a yard without grass:

What a pity that I was created an Ass?

"As for master—he sat

By the fire, with the cat,

And they both look as you do, contented and fat.

"Your nice coat of wool,

So elastic and full,

Makes you so much to be envied—ay, more than the bull."

"How can you pretend,"

Said her poor bleating friend,

"To complain? Let me silence to you recommend.

"My sorrows are deep,"

Continued the Sheep,

And her eyes looked as if she were ready to weep.

"I expect—'tis no fable,—

To be dragged from the stable,

And, to-morrow, perhaps, cut up for the table.

"Now you—with docility,

Strength and civility,—

Will live some years longer in all probability.

"So, no envy, I beg,

For I'll bet you an egg,

You will carry the spinach to eat with my leg."

For the New England Farmer.

WEIGHT AND MEASURE OF CORN.

At the late Legislative discussion on this subject, (at which very few Legislators were present) there appeared to be a wonderful discrepancy in opinion as to the product of corn in different parts of the Commonwealth. One gentleman said he had seen in the county of Berkshire, the present season, forty different acres, each of which yielded more than one hundred bushels to the acre—another said that he knew an acre in the county of Plymouth, that yielded (as measured) one hundred and fifty-nine bushels—and other gentlemen from the counties of Worcester and Essex, said they had never seen an acre of corn that yielded fair measure, so much as one hundred bushels. I had supposed some as good and as productive land existed in these last mentioned counties, as any in the Commonwealth, unless there may be some superior along the banks of the Connecticut.

The mode of cultivation must be better, or the

mode of measurement must be different, in those sections, where the large crops are reported. I consider a bushel of corn to be 56 lbs. when dried and fit for use—and have supposed this corn would weigh about 14 lbs. more when green—making the weight when taken from the field, 70 lbs. I understand the rule adopted, in weighing corn in the ear green, is to consider 80 lbs. to make a bushel when dry—this allows only 10 lbs. for the weight of the cob—one-half more than this should be reckoned; even so reckoning, I think there must be some error in the computation that reckons one hundred and fifty-nine bushels to the acre. On conversing with a gentleman, who lived in the neighborhood of this reputed large crop—he said the proprietor told him when he shelled it dry, it measured less than 120 bushels—taking off 40 bushels at least, from the reported crop.

Not doubting that all who were concerned in these crops meant to be honest—I think one thing was made very clearly apparent, in the discussion, that a more precise way of determining the quantity raised is absolutely necessary—if the crops in different towns, or different counties, are to be compared with each other. Our *Board of Agriculture* should begin to look after these things, or the people will soon be looking after them.

Jan. 26, 1854.

VERBUM SAT SAPIENTI.

MR. COMING'S ADDRESS

The *Connecticut River Agricultural Society* held its last Annual Fair at Lebanon, N. H., September 22, 1853. The Address was by the Rev. A. G. COMINGS, of Mason, N. H., a copy of which is before us. After giving a brief, historical sketch of agriculture in the past, and touching upon our present condition and wants, the Address abounds with excellent practical suggestions and sound teachings, of which we quote a few:

FOOLISH FARMING.

As there will be fancy farming, so there will be, doubtless, a great deal of foolish farming. By foolish farming is understood that kind of procedure which every man might foresee would be unprofitable to the farmer.

We frequently hear men saying that their fathers, with little labor and trouble, could raise much larger crops than they can now by the same or any other process. Yet they will strenuously contend that the way of their fathers is always to be perpetuated. They have full and clear evidence that the soil has been exhausted—that it is not now productive; but they will learn no better way. They know that they make no profit from farming, but they continue it! Their soils grow poorer and poorer every year; yet they contend that it is the very best way of farming! What folly! What blindness!

There are hundreds and I presume to say there are thousands of farms in New Hampshire, which are now in such an exhausted condition that the whole proceeds of them yearly would fall below the cost of cultivation and the taxes assessed on them. If a man could have one of them given to him, and be obliged to pay taxes upon it and hire it carried on, he would sink into debt every year. This is to continue the case in future, for

such of our farmers seem to despise the very idea of learning anything about farming. They look upon our agricultural societies as "a piece of speculation," and upon all ideas of agricultural improvement as "a humbug."

There are others who continue to use the most miserable tools that they can pick up, for no other reason but because they can buy them cheap.—Nothing is done well on their farms, for there are no tools with which anything can be done well. Their deficient culture is followed by deficient crops, and an absence of profit. It costs them as much labor for a poor crop as it would have cost for a good one. If a good crop would have afforded a moderate profit, a poor one leaves a loss to the farmer.

Another folly in farming is to cultivate more ground than can be manured. In all such cases loss is certain to the cultivator. Nothing else than high culture affords a real and lasting profit. Crop the ground without manuring it, and you will lose money by it, and the ground will become worthless. There will, undoubtedly, continue to be such farmers.

PROFITABLE FARMING.

Farmers will in future time come to understand that the earth and the air are both full of wealth to them. They will understand that the deeply bedded clay and the hard pan which is hidden far down in the ground are worth something more than merely to hold the world together. They will be found opening deep and broad drains, in the operation of which they will obtain valuable material for top-dressings on their upland, and at the same time make their low lands of much greater value by relieving them of surplus water. They will discard the idea of cultivating much land for the use of a little manure, as requiring much labor and tending to penury. High cultivation, without fancy farming, will be the way of the successful farmer of future time.

The importance of thoroughly pulverizing the soil will be better understood, and the value of the subsoil. Men who know little or nothing, by experience, about the use of plows, and other farming implements, and men who can understand no principle of science, will not much longer be trusted and credited in making and recommending such implements. Farmers will have all these things tested by science and by experiment. The plowman will also come under new orders. He will learn that his object is no longer to be the plowing over as much ground as possible in a day; but, to thoroughly plow and pulverize every inch of ground he goes over.

The conditions of respectability will be somewhat changed. The young man will not think it a dishonor to him to work on a farm. The young woman will no more think herself degraded by familiarity with the kitchen. Intelligence, industry, usefulness, will measure merit and establish a title to respect. These things we ought to consider now.

HORN GUANO.—While accounts are reaching us of the increase of the price of guano at the Lobos Islands and elsewhere, Mr. Wm. Herepath, analytical chemist, announces in a late *London Times*, a cheap, prompt, and effectual means of economizing town sewage, so that very nearly all its useful ingredients, including its ammonia, may be con-

verted into a guano intermediate between those of Saldanha Bay and Patagonia, having a fertilizing power of from five to eight times that of farmyard manure. In this way, he says, a vast quantity of fertilizing manure may be made, and, as all the products are deodorised, the sanitary condition of cities may be greatly improved by the process. *Traveller.*

For the New England Farmer.

SHADE A FERTILIZER.

MR. BROWN:—Dear Sir,—on returning home yesterday, I read in that copy of your paper I took with me, an article upon fertilizing land without the aid of manure.

The writer offers a new solution for the natural fertilization of the earth; and as his theory will not be found to explain the facts as universally observable, I have taken it upon me to offer some qualifications to his remarks; of the fact of this self-fertilisation no one can doubt; and doubtless many have wondered that such vast crops of wood do not injure the soil, since to follow wheat with corn or any other grain, in bulk bearing no comparison to the trees, for several years, materially injures the earth's productive power. But no one who has given a close examination to the subject, could endorse the writer's following wholesale remarks.

"Now I ask, how the fertility has thus been kept up, if the shade does not tend to fertilize? My opposer may say it is kept up by manure made from the leaves of the trees. I will admit that the foliage tends to fertilize, but as the quantity of matter returned to the soil in this way is so small compared with what is taken up by the growth of the timber, it is very evident to every wise husbandman, that there must be another great source of fertilization, or the soil would soon become exhausted."

Many facts that seem utterly inexplicable to men's reason are quite clear under the combined light of reason and experiment. It is very absurd to suppose the mere return of leaves to the soil could compensate for the material extracted in the growth of the tree, if the tree draws from the soil all its component parts.

Such is not the fact; and thousands of experiments have shown Boussingault, Liebig, and other philosophers, that the difference in weight between the materials of vegetable life existing in the soil before and after the crop, is not relative to the weight or bulk of matter grown upon the surface, but to the manure supplied.

Perhaps a few figures would make my meaning more clear. Boussingault made many experiments to test the quality of carbon in a soil, before and after cropping, and thus judge of the value of manure. For instance, in the spring he ascertained the quantity of carbon in the soil, and then added 2512 lbs. to the acre; on analyzing the crop in the fall he found 7544—a gain of 5031 lbs., leaving the same amount in the ground as he found there;—this increase must have been derived from the air; and had the 2512 lbs. not been supplied, the amount remaining in the soil would have been just that much less—and in a course of years none at all.

"This is what farmers mean by keeping land in good heart. A second experiment was upon Ni-

trogen, another most important vegetable constituent.

He ascertained the amount of Nitrogen, and then added, through three rotations of crops, the following amounts to the soil: 1st, 406.4 lbs.—the crop gave 501.4 lbs.;—2nd, added 406.4 lbs.—crop gave 508.4 lbs.;—3d, added 487.6 lbs.—crop gave 707.2 lbs. Thus we see each time the gain from the atmosphere very much exceeded that which the manure supplied.

Such facts teach us the need of manure, and why improvident farmers ruin their lands, better than all the reasoning in the world.

It will, therefore, be readily seen how it is that the trees of the forest supply in their leaves all that is necessary to keep the land in good heart, and a little more, for as your correspondent very justly remarks, land is benefited by being cropped with trees a number of years in succession, and that the benefit is not derivable from the shade, *as such*, but from the vast amount of nutriment drawn from the air into the soil by the lungs of the plants, a very large proportion of which remains there. A familiar illustration of which, is, the man who, having acquired a fortune, invests it, and lives on the interest; if he spends all the interest, he keeps at the same point of wealth; but if he does not use all his resource, and lays by a portion each year, he in time has a large surplus to re-invest. The forest is this surplus increase, and a little more; when we draw from the woods the leaves, we not only eat into the originally invested money, but reduce any surplus increase in equal ratio. The true reason of the benefit of shade your correspondent has dimly shadowed when he says:—"Putrefaction may be considered the ultimate result of vegetable and animal decompositions, because it forms the only product incapable of any other change. The surface of the earth will readily undergo the putrefactive process, if favorably located, that is, if densely shaded;" and yet it will not do to accept this statement in just the form he gives it. When the soil is densely shaded, the components of the earth continue in their regular routine, and aided by warmth and water, the various gases are still evolved, and the minerals disintegrated and brought into such forms as may be best appropriated by plants; when, therefore, the earth is shaded so that none of the volatile gases may escape with the air, they are all retained below the surface. If, however, not shaded, as in a common fallow field, many of them evaporate, and others are used by the weeds, &c., that will grow in spite of us. It is found necessary to reduce the weeds, to plow, and whilst plowing opens the earth to new gases, and more sun and rain, it also tends to evaporate many desirable aids to vegetation, hitherto securely buried under the hard surface.

Nor can we use anything as neutral to destroy weeds and retain the gases and moisture, that will not partially decay and add some of its constituent parts to swell the whole bulk of vegetable wealth.

When your correspondent advises a course of clover as a means of shade, &c., he advocates just the proper method of procedure, but not for his expressed reason. To follow clover upon corn, or any other crop, is merely rotation, the benefit of which all farmers are becoming sensible of; and its service to the earth is not by its shade, so much, as that it brings to the upper mould the minerals and

other aids to vegetable life, washed into the subsoil by rains, at the same time affording by the decay of its roots vast supplies of carbon to the soil, and is the practical illustration of the capitalist who does not spend all his income.

Very respectfully, R. M. COPELAND.
Roxbury, Jan. 7, 1854.

TRIPOLI, OR BERGMEAL.

Boston, Jan. 20, 1854.

SIMON BROWN, Esq. :—Dear Sir,—On my return home from the South, I found your letter of 8th ult., with the supposed magnesia from a pond in Cherryfield, Maine.

This deposit I have examined, and I have also submitted portions of it to the microscopic inspection of Drs. BACON and SHAW, who find it to consist of the shells of infusorial animalcules of the family Diatomaceae, of which there are several species. They are generally small, and hence this substance is remarkably fine and suitable for polishing silver and brass. The substance, chemically speaking, is, silica and water, with traces of phosphates of lime and magnesia. It is very pure, and unmixed with sand. When it is dried and roasted, it is the substance known in commerce as *Tripoli* or *Bergmeal*.

The following sketch will convey to you the idea of the general forms of these infusorial animal-



Bacillaria Naticula.

cules. They are very common in all our peat bogs, and most abundant at the bottom of the bogs, and are also found in ponds.

The species *gallionella*, are exceedingly abundant in the deposits from the water of Cochituate Lake. Indeed, the gelatinous deposits which this water leaves in our cisterns is made up of many species of diatomaceae, and an atom of this deposit big as a pin's head shews a multitude of them, and will form a study for hours. I do not remember how many billions of infusoriae were found by Erhzenburg, in a cubic inch of the Bergmeal, of Germany. I remember that it took some hundreds of thousands of them to weigh a grain. This curious deposit teaches us, when we look at it with a microscope, that

"The very dust we tread upon was once alive."

Respectfully, your friend and obt. servant,
CHARLES T. JACKSON.

P. S. A few days after the Cochituate water was introduced into our houses in Boston, I collected a large number, probably many millions, of a little crustacean animalcule which abounds in the water, by reversing my sand filter. I then collected them on a paper filter, and taking a spatula full of them, I placed it over my spirit lamp, in order to dry them, for the purpose of burning off the animal matter, so as to collect the shells, if they had any, for analysis, to see if they were composed of carbonate of lime, like the coverings of our larger crustaceans. The moment they were heated to the boiling point, they became of a fine lobster red color, and I thus was able to verify a suggestion in Peter Pindar, when after boiling a flea he is made to exclaim—

"Fleas are not lobsters, d—n their souls!"

Now we find by his experiment repeated on Cyclops, that if his theory is true, and his test reliable, that Cyclops are lobsters, d—n their souls! This discovery has recently been verified by Dr. JOHN BACON, Jr., who has boiled the cyclops under the microscope, and found that "they became of a fine red color—orange red, by transmitted light."

As to my crustacean researches on the cyclops, I did not find a distinct shell of carbonate of lime, but found the phosphates quite abundant in the ashes. The cyclops may be seen in any glass of unfiltered Cochituate water, by the naked eye, and by reversing the filter, and letting a tumbler full of water run through it, an enormous quantity of them may be obtained. There are many other very curious and quite interesting animalcules in this water; among them there are some species of *Monads* of *Vestige* notoriety, as the ancestors of the human race!!! A small beginning, indeed, if the "Vestiges" is a reliable authority!

If you have a good microscope, pray take a look at a drop or two of Cochituate water, from over the sand filter, and I think you will always inquire if the water has been filtered before you drink it.

C. T. J.

REARING CALVES.

Herdsmen and others who have had some experience in raising young cattle, have expressed various opinions in relation to the most proper course or mode of treatment to be pursued, some contending with a good deal of stringency for the natural way as they term it—i.e., permitting them to enjoy the company of their dams till four, five, six or ten months of age, while others assert with equal pertinacity, that the better way is to separate them from the cows when a few days old, and raise them, "by hand." The farmer of course will reflect upon the relative advantages of the two methods, and consider the claims of each to preference before he adopts either. But after all, whether the one or the other is most expensive, will depend wholly, or in a great measure, upon the circumstances of time and place. In very many localities, the butter and cheese a judicious and economical dairyman would be able to realize from the milk, or from the milk itself, without manufacturing it, would be worth more in ready cash, than the carcass of the calf, while in others, it would scarcely defray in the market the cost of manufacturing, while the calf would be valuable. A friend who has had much experience in dairying and rearing calves, has directed attention to the following able article on the subject in the *Genesee Farmer*. We present it from that sheet as conveying a most lucid and readily understandable synopsis of our own views of what, in a large majority of cases, would unquestionably be found the most judicious and economical course, for the farmer engaged in stock raising for the market, to pursue.

"The cost in both cases ought to be taken into consideration. In the first instance, the butter and

cheese, which might be made from the milk would amount to more in four months, than the value of the calf at that age. In the latter the proceeds of the milk are nearly attained independent of the raising of the calf. This can be established by unquestioned and unquestionable authority. Then there is a very great balance in favor of the latter.

That the calf that runs with the cow four months, will somewhat exceed in growth and proportion the one reared by hand, is readily granted. But after that period, it is taken from the cow, and has to graze to get its own living. There is a change of diet takes place; it shortly becomes stunted; its growth is checked, and this too at the very period when it ought to be in the most thriving condition. The one reared by hand becomes more and more accustomed to food, continues gradually to improve without receiving any check in its growth, and when winter arrives, is in far better condition than the others.

There are different procedures in preparing the mess for the calf. Each one has a favorite plan. One mixes with a small portion of milk, a portion of boiled potatoes and fine bran. Another boils the milk, and lets it stand till it cools to the temperature of milk from the cow. The plan most generally adopted (and perhaps the best,) is, to let the milk stand twelve hours, at first, when it is skimmed, heated to the temperature of the cow and a handful of shorts and flour added to each calf's mess. Four or five quarts of milk is at first a proper quantity. This is to be gradually increased as judgment can best decide. After four or five weeks, whey, with a small quantity of shorts added, can be taken with equal success. Calves raised in this manner are more gentle and docile than when they run with the cows, and can be better managed through the winter, and most generally afterwards. Another very important consideration is, they soon forget their mother, and the trouble of keeping them separate through the fall and winter is dispensed with."

For the New England Farmer.

MOUNTAINS OF VERMONT.

The mountain scenery in this county is the most sublime and beautiful of any in the State. The two lofty ranges on each side of our valley, "clothed in living green," are "beautiful to behold;" and their pure, healthy breezes, in the warm season, are refreshing to the "weary laborer." But it is not *always* in the warm season, that they appear in their greatest splendor. At this cold season of the year, the damp vapor of the atmosphere is frequently congealed in starry frost, on every tree, bush and twig, that cover the mountains. They are then covered with a *crystal forest*, from base to summit, the beauty and splendor of which, as it sparkles and glistens in the bright rays of the sun, no pen can describe, no pencil imitate. Mansfield mountain, west of Stowe, is the highest of the "Green Mountains." It is a profile of an "Old Fellow" on his back, yet ever looking upwards—a good example for others to imitate. His "phrenological developments" are somewhat intellectual and peculiar. The top of the head and forehead are regular; the "nose" prominent, and the "chin" *more so*—being the highest place in Vt. The people have made a

horseback road up to the "nose." It is three miles from where they leave the carriages to the top. Half way up is the celebrated "cold spring," where they intend to build a house next season, to "accommodate the travel." Under the nose, at the nostrils, issues another spring. Here are the camps, where the ladies and gentlemen stop over night, "take tea," &c.

About a mile and one-half north of the "nose," is the chin. Both "nose and chin" are bare rocks. Some adventurers have erected a little stone monument on the chin, which is the highest point of the Green Mountains, being more than 4300 feet above Lake Champlain. The number of visitors to this mount have greatly increased within a few years, and will much more, as it becomes more known. The view from the top is conceded, by those who have visited many "celebrated places," to be the most splendid and sublime of any in New England. You not only have a view of the many peaks of the Green Mountains in different directions around you; but also of the White Mountains in N. H., and the Adirondic in N. Y. To the west can be seen Lake Champlain, with its many beautiful isles, and the white sails and steamboats furrowing its lovely bosom. But not the least enchanting view, are the beautiful farms and pleasant villages in the lovely vales beneath you. Those who delight to see such views, and breathe the pure mountain air, can find folks and things at their service at Stowe, Vt., another season.

MILAN.

Morristown, Lamoille Co., Vt., Jan. 10. 1854.

THIRD AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, JANUARY 31, 1854.

SUBJECT—*What can be done to make the Home of the Farmer more attractive and agreeable?*

The meeting was called to order at half-past 7 o'clock, by Mr. SIMON BROWN, who remarked that the Secretary of the Board of Agriculture had been charged with the duty of procuring a lecturer for this evening, but had been prevented from so doing, by pressing engagements and ill health. Mr. BROWN then invited His Excellency Governor WASHBURN, who was present, to assume the duties of the chair for the evening.

Governor WASHBURN complied with the invitation, and on taking the chair, briefly addressed the audience on the subject for the evening's discussion. He said he did not know but what he might be charged with being guilty of a solecism, if he should assume that anything could be done to make the home of the farmer more attractive and agreeable. The poets have always sung of the charms of a rural home, from the days of Homer down to the present time. The farmers are, undoubtedly, the happiest class in the community, but it is not to be supposed, that they are entirely exempt from the trials and cares of life. Therefore, we may assume that something may be done to improve the home of the farmer. But he feared a greater solecism might be charged upon him in dwelling on this theme, for he had never, since manhood, been engaged in agricultu-

ral pursuits; but if the reminiscences which came thronging to his mind, of a participation in early life, in the duties of taking care of a small farm, could be urged as a qualification, he felt that he might claim to speak in some measure as a farmer.

What can be done, then, to make the home of the farmer more attractive? In the first place, it will hardly be contended that any change in his physical condition is necessary—especially here in Massachusetts, where, although the soil is sterile and the climate uncongenial, the farmer enjoys inestimable blessings in political, social and religious privileges. No great change can be looked for or desired in this respect. Then wherein can change be made? There is one thing; there ought to be a more decided contentment and satisfaction with the condition in which he is placed, on the part of the farmer; he should also understand his relative position in society better than he does. The speaker thought there was a false estimate in the community of the true position of the farmer. How do we find him situated? A man with a large family, perhaps, and with straitened means. He sees men in other callings obtaining riches easier and more abundantly than himself. Those who enter commercial pursuits, rapidly outstrip him in the race for wealth and distinguished position, while those who enter the professions, as they are termed, run a more brilliant career, and obtain high distinction—and all this gives him the idea that his sphere in life is too much confined—his energies too much cramped. His occupation has been too generally regarded as one of mere *labor*, not as intelligent, thinking, activity. This is a false system. Men should regard farming as it stands in relative importance to other pursuits. It is a profession of which any one may feel proud, embracing science of the highest order, and is inseparably connected with the best interests of society; and farmers should hold up their heads and take their rightful position in the community.

Governor WASHBURN urged upon his hearers, as a means of elevating the farmer, that they should act together, and come together, as a class, a scientific class, and as pursuing the most important calling of society. Let there be an *esprit du corps*, and let it be known as a high and respectable profession, and farmers cannot help taking their true position in society.

Another way of improvement will be in sustaining the county and State agricultural societies, attending their meetings, and discussing there the matters of general interest to the profession. This will cause the farmer to feel his own powers, and increase his consideration in the community.

He also alluded to the cause for congratulations which the farmer of Massachusetts has, when he compares his condition with that of the farmers

in other sections of our country, where, perhaps, the soil is richer, but where the blessings of churches, schools, and other beneficent institutions, do not cluster in such rich profusion as here. Go abroad and witness the condition of the agricultural population of Europe. They enjoy no such social privileges, no such independence as the farmer of the United States enjoys. We are as much above them as our government is better than theirs. The farmer of this country is free from the landlord's tax, which grinds them down. In Europe one-fourth of all the farmer produces is wrung from him by government. In matters of food, and in many other respects, the condition of the American farmer is equally superior. He believed that a farmer visiting Europe, as he had done, and witnessing all these things, would return to his home in Massachusetts with the deep conviction on his mind that his own home, though it may be improved, is yet *better than any other on earth*. As a proof of the influence of the agricultural interest, it gave him pleasure to know that more than half of the members of our present House of Representatives are farmers.

On concluding his remarks he called upon Mr. PROCTOR, of Danvers, to address the meeting. Mr. Proctor said one of the first ideas which entered his mind in taking up the subject of discussion was how to induce the sons of farmers to remain at home and engage in the profession of their fathers. It is true as a general rule that they look around on becoming ready to engage in life for themselves for some profession which will yield them distinction and a competency earlier than that of farming. They find that while they cannot earn more than two, three, or four hundred dollars per year at farming, young men in the cities are making as many thousands. He thought there was another side to this matter, however, for while it has been ascertained that but ninety out of one hundred who engage in commercial pursuits, eventually succeed; he believed that, with habits of sobriety and industry, and by avoiding speculation, any man could, by the time he was 40 years of age, secure a comfortable property, and live in the enjoyment of plenty, and happy associations. He believed farmers as happy and respectable a class as any in the community. They have more time for study and reflection, and less cares and anxieties than any other class. If we can make our young men believe this, home will be made more attractive and agreeable.

Mr. JOSEPH SMITH, of Hadley, made a few remarks in regard to the importance of educating farmers' sons especially for that calling by providing schools and colleges for that purpose. He thought the present system of education led them to believe that other pursuits were preferable to farming.

Mr. M. HALE SMITH, of Boston, was next called on

for remarks. He looked upon the subject as one of great interest to the farmers of Mass. and New England. In order to make home attractive to children, he would do three things—1st, magnify the present power of home; 2d, dignify labor in the estimation of children; 3d, endeavor by liberal expenditure to meet the reasonable expectations and desires of the child, by making home happy, and the source of intellectual pleasures.

First. The child should be made to feel all the hallowed associations of home, so that they will follow him through all the vicissitudes of life. He believed that there was nothing so endearing as the home of the farmer, upon the hillside, or by the stream, with their numberless quiet beauties. God has planted in us the power of association, and the scenes of a loved home will be mentally present with us, through all the days of life. When men go abroad in pursuit of wealth, even to far distant climes and to novel scenes, and gain the object of their pursuit, what desire takes possession of their minds? Do not their hearts turn fondly to the memories of childhood, and as the crowning point of their career, do they not come back, and purchase the old homestead, there to spend their old age?

Second. Our children should be taught the dignity of labor, for it is this which has made Massachusetts what she is. It is *occupation* that confers happiness, not wealth. An aged and wealthy merchant was once asked if he was not rich enough? He replied yes, and was then asked why he did not retire from business and enjoy that rest which he was so well able to afford? He replied that he could not live without *something to do*—idleness would make him crazy. He would have young men understand that if they would be happy, they must be industrious. It is the power and glory of Massachusetts. She can raise men and nations, because she dignifies toil.

Third. Cultivate taste, and the indications of respectability about home; make it more ornamental, living less in the kitchen, and more in the parlor. We owe this to home, in order to give it those charming influences which distinguish our New England homes, and he thanked God for them, for they have given us the government and institutions under which we live.

Mr. SANGER, of Dover, urged and illustrated the efficiency of intellectual pleasures in making home attractive. Good reading is a great instrument for making our children love home.

Dr. EDDY, of Bridgewater, advocated at some length the utility of cultivating bees as a means of rendering home more interesting.

Mr. COPELAND, of Roxbury, said farmers should take more pains to interest themselves in the studies and reading of their children. This would please the child, and make him feel that home is home. Many farmers are in the habit of spending

their evenings at the village store, or some similar resort, instead of directing the studies of their sons. The son, without this stimulus, naturally becomes tired of studying, and prefers to go to the store also. The girls, too, should be made to love home, and not to look upon it as a place where churning and scrubbing only are to be done. They should be taught farming; and not be ashamed to know what stock is. They must be educated, too, for woman is the standard in society, and young men, in mingling in society, if the standard is high, will be elevated, but if low, will go downward.

The homestead, too, should be made to look handsome—not like barns, and even worse, as many of our farm-houses do. The power of beauty over the mind is great, and money spent in beautifying the homestead will increase the attachment for that homestead, and is by no means thrown away.

The sons should also be shown more liberality. Many of them, when they start in life, have to purchase their time of their parents, and when at home, work more like slaves or hired servants—up before daylight, work all day, and the last thing on their minds at night to look after the stock before going to bed.

Children should be taught to plant trees and flowers, and it will render their homes dearer to them, and they will be more likely to remain in it.

Mr. BROOKS, of Princeton, said there had been remarks made which would lead one to suppose that the farmer was a very miserable creature. He did not coincide with such remarks. Where can you find in the community a class whose homes are happier than farmers, and whose sons and daughters are fonder of home? He was well acquainted with all classes in society, and he had rather associate with farmers than any other—they are full, as intelligent as any other,—they have not taken their proper position in the community, it is true, but that is owing to peculiarities in the moral character, which have caused them to neglect their true position in society. Their failure to do this is owing to their not demanding a fair share of the profits of the community. He sells cheaper than he buys. He shrinks from the boisterous struggle for money which characterizes most other callings. When the farmer obtains his rightful share of the profits of the business of the community, they can pay as good wages as merchants or manufacturers, and their children will stay at home, and not till then. They like home better than to go abroad. He appealed to farmers to insist on their share of the world's wages.

Mr. Brooks contended, farther, that farming was profitable, and declared that he could make more money off an acre of corn in Mass., than in any Western State. He would defy any one to

controvert this. So also of pork, it can be raised more profitably here than there.

Major WHEELER, of Framingham, said he had heard that Mr. Brooks had run his farm all out, and wanted to sell. He wished to know if it was a fact.

Mr. BROOKS replied that he desired to sell, simply because he was getting old. As to his farm being run out, he scorned to praise it, but was perfectly willing to have any one examine it. He commenced with fifty acres, and two cows, and now had 150, with 40 head of cattle and one horse, having added to his land twice, and to his stock ten times. The land was originally worth \$20 per acre; he now obtains interest on a value of \$200 per acre. He considered his farm worth about \$5000 or \$6000, and he could clear \$500 or \$600 a year from it free of all expenses.

Major WHEELER said he was happy to hear the statement. He did not believe the story when it was told him. As he was an enthusiastic asserter of the profitableness of farming, it had been brought as an argument against him, and he made the inquiry for that cause.

Mr. SIMON BROWN was then called on for remarks, but excused himself, by saying that his premeditated "thunder," had been anticipated by those who had already spoken. He expressed a wish to hear from the Western part of the State, and alluded to Hon. WM. B. CALHOUN, as being able to respond. Mr. Calhoun, however, excused himself by pleading the lateness of the hour, it being nine o'clock, but expressed a willingness to respond on some future occasion.

Gov. WAASHBURN then read the following list of subjects prepared by the Executive Committee for discussion at the coming meetings, and the meeting adjourned:

1. Is the *increased culture* of Indian Corn, worthy the attention of the farmers of this Commonwealth?
2. Can anything be done to make the *home* of the farmer more attractive;—and to retain the sons of the farmer in *this employment*?
3. *Plows and Plowing*,—taking into view the form of the plow,—the time and manner of using it, and all incidents connected therewith.
4. *Manures*,—preparation and application thereof; including improved fertilizers.
5. *Vegetable products*,—such as carrots, beets, turnips, &c., their value as feed for stock, compared with hay and corn.
6. *Dairy products*,—what class of animals is best fitted for the making of butter and cheese, and what is the best mode of feeding for these purposes?
7. *Culture and preservation of fruits*.
8. *Neat-Cattle*,—what is the best method of improving the stock of animals to be kept on our farms?

9. *Sheep*,—can they be advantageously kept on our farms; if so, the kind best for this purpose?

10. *Grain crops*,—wheat, rye, barley and oats—their value as compared with Indian corn, and as preparatives for grass.

11. *Forest Trees*,—can they be advantageously cultivated—if so, what varieties, and in what manner?

11. In what manner can the State most effectually advance the interests of the farmer?

It is expected that Dr. JOSEPH REYNOLDS, of Concord, will lecture at the next meeting: Subject:—*Vegetable Chemistry*.

For the New England Farmer.

CORN, COBS, AND GRINDING.

If the value of cobs for feeding to horses and neat stock is considered in a true light, it seems to me that many who now attribute the unpopularity of pure cob meal to the dislike of millers to "grind the cobs," (as stated in a late number of the *Farmer*,) will come to the conclusion that millers, even, are more honest than they are always acknowledged to be,—in this State where 1 qt. extra is allowed by law for cracking and grinding cobs. We will suppose Mr. W. carries 24 bbls. of ears of corn to mill, equal to 12 bbls. of shelled corn, for which 24 qts. of corn must be paid for grinding. Now, according to the statement of "T. W.," an accomplished and honest miller of long experience, the 24 bbls. of ears will make about 20 of cracked corn, for which 60 qts. of shelled corn must be paid for grinding. Three-fifths of this 60 qts., or 36 qts. (the cob only shrinking in the cracking) of shelled corn must be paid for the grinding of 12 bbls. shelled corn and 8 bbls. of cracked cobs, which will again shrink in grinding to 4 bbls. of pure cob meal, for which Mr. W. has paid 12 qts. of shelled corn.

Now, upon this supposition, which I think is correct, does not every one "pay too much for his whistle," when he whistles through a bag of cob meal to make his cows fatten upon the music? Can any man imagine that 3 qts. of shelled corn are worth no more than 32 qts. of cob meal? Who among our farmers would pay me a bushel of shelled corn for every eleven bushels of cob meal I will furnish? If such a contract could be made, a mill for the purpose can be made profitable in every corn county and town, doing nothing but grinding cobs.

All this supposes that millers take their toll from an average of the cracked corn, which is far from true in many, if not most cases. I have often seen the "toll corn," and seen it taken, and so common is the thing that purchasers oftener pay 80 cents for corn at the mills than 70 cents from the farm. Many mills will average $\frac{1}{2}$ to $\frac{3}{4}$ clear corn in the toll instead of 3-5, in the above supposition.

Now I am not trifling with cobs, but reasoning a little upon paying corn to get cobs ground. I believe in the value of cobs when soaked or steeped over the fire and the toll corn ground and sprinkled on them, and then fed to cows, liquor and all. Such use of cobs is a saving of all.

A man at 100 cents per day in winter will thresh 40 bbls. corn per day with a flail. Take 24 cents

per bbl. from your toll corn, and you have the case in hand.

G. F. N.

TRADE AND SPADE

BY CHARLES MACKAY.

Between two friends in days of old
A bitter strife began,
And Father Spade with Brother Trade
Disputed man to man.
"You're vain, undutiful and proud,"
Said Spade with flashing eyes,
"You earn your thousands while I starve;
You mock my children's cries;
You ride in state with lordly looks;
You dwell in bower and hall;
You speak of me reproachfully,
And honor in my fall.
So from this hour, in shine or shower,
We'll learn to live apart;
I ruled the earth ere you were born,
I cast you from my heart."
And Trade lost temper in his pride;
He uttered words of scorn;
"You do not know the ways of men,
Amid your sheep and corn;
You dose away the busy day,
Nor think how minutes run;
Go put your shoulder to the work,
And do as I have done.
You're all the earth to yield your wealth—
Both corn and pasture land;
I only ask a counting house,
A room whereon to stand.
And from this hour in shine or shower,
We'll learn to live alone;
I'll do without you well enough—
The world shall be my own!"
And thus they wrangled night and day,
Unfair, like angry men,
Till things went wrong between them both,
And would not right again.
But growing wiser in distress,
Each grasped the other's hand:
"Twas wrong," said Spade, "to rail at Trade;
He loves me in the land."
And Trade as freely owned his fault;
"I've been unjust," he said,
"To quarrel with the good old man,
Who grows my daily bread.
Long may we flourish, Trade and Spade,
In city and in plain!
The people starve while we dispute—
We must not part again."
And all the people sang for joy,
To see their good accord,
While Spade assembled all his sons
And piled his piteous board.
He fed them on the best of fare,
Untaxed the foaming ale,
And prayed in England's happy shams
That Trade may never fail;
And busy Trade sent fleets of ships
To every sea and strand,
And built his mills and factories
O'er all the prospering land.
And so we'll sing God save the Queen!
And long may Brother Spade,
For sake of both the rich and poor,
Unite with Brother Trade.

EXPORTATIONS OF BREAD STUFFS.—The *Courier and Enquirer* says that "since September 1st, there have been exported to Europe alone, from this country, 1,100,000 barrels flour; 4,750,000

bushels wheat; and 650,000 bushels corn. Of this immense business, this city has probably more than three-quarters. About one million barrels of flour will be received in Boston during this year, and two millions and one-half bushels of corn. Only seventy thousand barrels flour have been exported to all foreign countries from Boston since September 1st. Of the great quantity of bread-stuffs landed there, but a small part is shipped away. Nearly all is sold for home consumption.

THE SYMMETRY OF THE SOLAR SYSTEM.

The following is part of an article, by SAMUEL E. COWES, formerly of Portsmouth, N. H. We copy it from the *National Intelligencer*, in which paper Mr. Cowes has published several articles recently, of a nature too abstruse, perhaps, to interest the general reader; suggesting new and startling views of the laws of motion of the heavenly bodies. Mr. Cowes is a self-educated man, and an original thinker. His reverence for antiquity is not, like that of some scholars, so profound as to obscure his own reason. The student of astronomy or natural philosophy will find in all the articles from the pen of this gentleman, a vigor and freshness which does not usually belong to writers on these subjects.

All our readers will, we know, be pleased with what follows:

"All forms resemble, yet none is the same as another; and the whole of the living points to a deep hidden law—points to a sacred riddle."

What is symmetry? If we draw lines on a piece of paper, and before the ink is dry, fold the paper in the middle of the random scratches of the pen, the lines will be repeated on the opposite side, and a symmetrical figure is the result; because, however irregular and confused were the lines as at first made, each line has imprinted itself opposite, and there ensues a balance of parts which constitutes symmetry.

A symmetrical building has the same height, the same length, and the same finish and appendages on each side of the central line. The architect has repeated his work without a variation of plan; he has enlarged the edifice without a change of the constructive idea he formed. One part is wisely constructed, and the wisely constructed whole is a repetition of perfect parts. It is, therefore, congruity resulting from unity of design which gives the symmetry of structure.

In works of Nature this congruity and unity of design is exhibited in a most wonderful manner. We observe symmetry everywhere; as the Bible declares, "all things are double, one against another." The limbs of an animal are duplicates; its body on one side of the medial line is the counterpart of the body on the other side; one animal is the type of another of the same family. This congruity extends between families, races, classes, and orders of the animal kingdom. The animal fades away by an insensible gradation into the vegetable, and the vegetable into the mineral kingdom. Element also correspond to element, and this world itself to other worlds; one division

of the solar system to another group of the same system; and the great system itself corresponds to the other systems of spheres which revolve around the great centre of the universe. There is no break in the creation—no disjointed members—no isolation of parts. One style or general character subduces the most varying into the common expression. Creation is an extension of divine wisdom; the most minute part is perfect, and the general perfection is a repetition of these perfect parts. Symmetry is, then, the many signatures of the one archetypal seal; it is the participation of all things in the pervading and immutable wisdom of God.

The study of the symmetry of the solar system is the great work of the astronomer, and all his researches in this direction will bring to him a due reward. He can know of remote worlds because he knows of this world. He can estimate the magnitudes, distances, and periods of afar-off spheres, because there are magnitudes, distances, and periods which he can measure. He can appreciate the beauty and sublimity of the heavens, because he feels the beauty and sublimity of that part of creation which lies open to his eye.

Could our view embrace the solar system at one glance, were the full depths of space thrown open upon us in awful sublimity, re-echoing in our ears "all things are double one against another." But our view is limited; the glory of the heavens lies buried in the obscurity of distance. We must look around and about us, and comprehending the visible objects, ascend by toilsome steps from the minute to the grand—the unknown from the known, every day widening the horizon and enlarging the view.

Let us recall the symmetry of one simple wild flower of the myriads of such growing in the fields, forest, and on the mountain tops. The segments of its cup, of its petals, of its stamen, of its style, are regular, equal, and alike; every part of it has a corresponding part; even the tints and shades of color on one side are repeated on the other side. We could draw the flower reconstructing it from one of its smallest divisions.

Again, a leaf declares the form of the tree on which it grew. Its petiole or foot-stalk is an analogue of the trunk of the tree from the ground to the point of the offset of its first branches. The veins of the leaf, as they extend from the centre or the midrib vein, shoot out at the same angle as shoot out the branches from the stem of the tree; and the veins are whirled, reticulated, or otherwise distributed as are the branches.* A leaf thus gives a miniature drawing of its parent tree; it writes down in its tiny page the character of the great vegetable organisation of which it is a minute appendage.

Compare the leaves of two strawberry plants, one being a red, the other a white berry; both leaves are of the same form, serrated alike, and of the same shade of green, but on the apex of the one leaf there will be found a red dot, while in the same position on the other leaf will be seen a white dot, as marks or indices of the color of the fruit.

Cuvier could reconstruct an animal from a small fragment of one of its bones, and teach of its habits and food, and generally of its character. The bit of bone under his eye grew to the perfect bone; the skeleton appeared re-clad with its flesh,

and the muscle seemed to be covered with a skin, spotted and colored as when the animal a thousand years ago had made the forest to tremble beneath its cry. The character of the animal can be known because this character is written down on every limb, member, and part of its body.

They who seek to know of the harmony of the spheres have been ridiculed "as men of prurient imaginations." But something more than fancy is required. Stern science and laborious deductions are the only avenues to this knowledge. The footsteps of men like Cuvier must be followed. Knowing a part of the solar system, even one sphere—as a leaflet of the tree whose branches cover the heavens—knowing some one phase of the great law which binds together the brotherhood of worlds, it is possible for the mind of man to conceive, for him to see with the inner eye what instruments can never measure, what telescopes can never reveal—the solar system as a perfect symmetrical whole.

This world is wisely made, and the far-off Neptune is in symmetry with it. The position of the Moon relatively to the Earth was wisely determined; so the distance of the group of the satellites of Neptune bears one and the same relation to its primary. As there is a known proportion between the periods and distances of the planets, so is there also a fixed proportion between their magnitudes and distances. One fact must be used to evolve other facts; and these again to make known some truth at a greater distance, until the solar system is reconstructed in the human mind.

"That which the human mind demands to know, what it resolves to attain it never fails to discover." Truth often lies nearer to us than we suppose. But is there any present attempt among the astronomers of the day to push the inquiry for new manifestations of the symmetry of the spheres?

Astronomers watch for the return of comets into the fields of the telescope. They discover new planets and asteroids; they compute the elements of orbits; they pass whole lives in mathematical abstrusities, buried up in wise drawn calculations of planetary perturbations. They find what they seek. Newton, in their opinion, has attained all the principles that can ever be attained. In their own language, "Newton seized the golden key which unlocks the mysteries of the universe and holds it in an iron grasp." Nothing is left for them to discover, no truth for them to evolve; and since the days of Newton not one general principle of physical astronomy, manifesting the simple majesty of the heavens, has been disclosed.

We have full faith that there is to be built up a philosophy of the heavens opening to the human mind a distinct view of the symmetry of this almost boundless creation of God; for this great system of worlds is but as one world, is as one creation, the limbs of the members of which, though stretched out in infinite space, are in harmony one with the other; their magnitudes and distances growing out of each other so directly that the magnitude and motion of the Sun, as the central body, being known, the magnitudes and motions of every revolving sphere to the most minute satellite of the farthest planet may be also obtained, the whole being the seamless vesture of the creative wisdom of God.

Astronomers have rested long enough on the triumphs of the Keplers and Newtons of former

ages. Honor to their memory! Let such never be mentioned but with heartfelt reverence! But there is work yet to be done: new truth yet to be attained. If the work is not done in the present age, if the further truth is not attained by the living, future ages and coming astronomers will not permit the science to remain as it was left by Newton two hundred years ago. Recall the words of Newton at the close of his *Principia*: "In the preceding books I have laid down principles not philosophical but mathematical; such, to wit, as you may build your reasoning upon in philosophical matters." He foresaw to what his mathematical system would lead; as the seer and prophet, a vision rose before him of the true philosophy of the heavens, of which his laborious and abstruse calculations were the scaffolding.

We reverence the Arys, Adams, and Le Verriers of Europe—the Pierces, Maury, and Mitchells of our own country. Their minds are acute and their labors truly praiseworthy; their observations give a knowledge of the past, present, and future positions of the spheres, and are highly valuable. It is the extended eye-sight. Their abstruse calculations, too, are indispensable. They make the courses of the stars, otherwise invisible, to be as golden wires across the heavens.

But this is not all. There is another department in astronomical science for other purposes—purposes less worldly utilitarian, but far more valuable, and demanding the use of other faculties of the mind. We want not a science shut up in observatories, hidden from the common eye in the abstrusities of mathematics, and comprehended only by those who devote their whole lives to the study, but an astronomy that appeals to cultivated men and to intelligent women; an astronomy which will bring the human into connexion with the Divine, which will develop the creative power of man, that he may be in sympathy with the form and fashion of the universe; that he may be able to place his tiny footsteps in the track through which the creative power of God has passed.

There is a power in astronomy which has not been developed; there is a light in the science which is yet to cheer and brighten the common mind, to elevate it to the contemplation of the boundless power of the Creator of worlds; so that when men look up to the heavens, seeing there the almost infinite number of spheres dotted down on boundless space, when, in the stillness of the night, they behold worlds in number without end, each one filled with life, intelligence, and happiness, the thought may rush into their minds that this vast creative power has been and is now in action for beings like them; not only that they might eat and drink and die, but that, dwelling in the edifice of God, they may have the high and the exquisite joy of hearing from the stars of the glory of God, and of learning from them of the simple majesty of His handiwork in the heavens.

S. E. C.

*This is stated in a paper read before the "British Association" as true of one hundred and ten species of trees which the author of the article had examined.

DEPTH OF ROOTS.—LINUS CONE, of Michigan, states in Moore's *New Yorker*, as the result of all his examinations, that he has invariably found the roots of grass, grain, vegetables, fruit and forest trees, occupying *all the soil*, no matter what was its depth. He has taken out stumps where the

roots penetrated a hard clay more than eight feet, and has gathered wheat roots by the handful, in a drain more than three feet beneath the surface. He hence infers that the deeper the soil can be plowed, and rendered friable and fertile, the better.

CRYSTAL PALACE AWARDS.

The awards of the juries of the New York Crystal Palace have been published. Medals and "honorable mentions" appear to have been scattered with a very liberal hand. The whole number of silver medals is 115. Of bronze medals there are 1185, while 1210 exhibitors (or articles) receive the more simple distinction of an honorable mention. The greatest number of silver medals falls to the lot of the United States. The next country in rank is France, which has 15; while Great Britain has 9, Germany 5, and Switzerland, Austria and Italy one each. Of the bronze medals, the United States has 505, Great Britain 143, France 153, Germany 106, Prussia 30, Belgium 10, Switzerland 29, Holland 12, Austria 18, Italy and Sardinia 44, British Possessions 28.

Of the silver and bronze medals awarded, 115 were given to New England. Massachusetts takes 57 of these medals, and 42 "honorable mentions." The following is a list of the Massachusetts contributors to whom silver medals were awarded:

Ruggles, Nourse, Mason & Co., Boston and Worcester, Mass., for the scientific principles which have been practically perfected by Samuel A. Knox, their Artist, and adapted to the series of Sod and Stable Plows, exhibited by them.

Adams, S. & J., Boston, for Standing Printing Press.

Ames, James T., Chicopee, for Eccles' Patent Gingham Looms.

Whipple, John A., for Crystalotypes, a new art.

The following is a list of the Massachusetts contributors of *agricultural implements*, to whom bronze medals were awarded:

Massachusetts Shovel Co., Worcester, Sumner Balcom, Agent, for Kimball's Patent Shovels, with malleable iron sockets.

Ruggles, Nourse, Mason & Co., Boston and Worcester, for Armsby's Patent Corn Sheller, and for the general assortment of Agricultural, Horticultural and Dairy Implements of their own manufacture.

Ames, Oliver & Sons, North Easton, for a case of heavy Shovels and Spades.

Partridge, Henry, Medfield, for a very superior collection of Potato Rakes and Manure Forks.

Ruggles, Nourse, Mason & Co., Boston and Worcester, for Perry's Patent Meat Cutter; for a Vegetable Cutter; for the Double Sod and Subsoil Plow, improved by the application of the principle discovered by Knox.

"Honorable mention" was awarded to the following citizens of this State, for agricultural implements, &c.:

Dennis, John H., Boston, for a Bee Hive.

Knox, Samuel A., Boston for his principle in the Mechanism of Plows, &c., and for a new Seed Drilling Machine.

Old Colony Iron Company, Taunton, for a beautiful

case of good looking Shovels and Spades of steel and yellow metal.

Phelps, E. W. & Co., Westfield, for premium Combination Bee Hive.

Rugg, Ames, Montague, for improved bent Hand Hay Bakes.

Ruggles, Nourse, Mason & Co., Boston and Worcester, for a neat chest with assortment of Horticultural Tools; for Sausage Fillers, in consideration of their superior mechanism; for a Horse Hoe, and for the superior workmanship of their Flows; also for Combination Pumps, Drawing Knives, &c.

EXTRACTS AND REPLIES.

POUDRETTE.

"I have heard something said about a kind of manure got up at New York city. I understand that it is the filth, night-manure, &c., &c., of the city, which is collected by a company, and manufactured somehow and sent off in barrels. It is said to be second to no other substance as a manure. Please tell me what you know of it, and its cost per barrel?"

REMARKS.—Poudrette is manufactured from the materials mentioned above, principally night-soil, however, and is sold in small quantities at \$2.00 a barrel—something less for a number of barrels. It is a powerful fertilizer, and held in such esteem by the most intelligent cultivators, as to make a demand greater than the supply. If you address "The Lodi Manufacturing Company, New York City," your order will reach the persons engaged in the sale of the article.

SOWING MEADOWS TO GRASS.

I am about ditching and clearing the moss, breaks, bushes, &c., from a tract of low, boggy meadow, and am spreading the mud that comes out of the ditches upon the surface. After it is finished, I should like to know what kind of grass seed I shall sow, or what would probably be the most suitable for such meadow?

West Hardwick, Jan., 1854. A SUBSCRIBER.

REMARKS.—As far as you go with your meadow, reclaim thoroughly, and you will find double the profit in it. Plow, if possible, but if not, bog deep, gather and burn the roots, hassocks, &c., scatter the ashes, level the whole and sow seed the same as for upland—herd's grass, red-top, and in the March following, a little clover seed. We mention these grasses because they are all good and hardy, and in our present state of knowledge of the grasses, the best, perhaps, we can use. But that there are other grasses of equal or greater value, we are strongly inclined to believe, and we greatly need some well authenticated tests of their relative merits. The grasses vary widely in the proportions of their nutritive properties, as well as other plants. In 100 grains of rye grass, there are 65 parts of mucilage or starch and 8 parts of sugar, the remainder being bitter and saline matter; in the meadow cat's-tail, or herd's grass, 74 parts starch, and 10 sugar; in white clover in flower, 77 parts starch and 2 sugar; in red clover

in flower, 79 starch and 8 sugar; and in the meadow oat, 89 starch and 10 of sugar.

In what we have said, we take it for granted that you have drained properly—that is, have so far ascertained the wants of the land as not to take the water off too far from the surface on one hand, or suffering it to rise too high on the other. Draining, is by no means an operation of the hands alone; without the aid of science, it often proves detrimental, rather than a benefit.

HOW TO USE GUANO.

"If you will inform me how to apply guano the best to promote our common crops, you will confer a favor on myself, and I doubt not on many others beginning to use it."

REMARKS.—Pound it fine, mix with loam, moist sand or meadow muck, one part guano to four of the muck or loam. Mingle it thoroughly and apply as much as would make one gill of the guano to the hill. If you use it for the garden, steep it in water and sprinkle with the watering-pot. See *Monthly Farmer*, vol. 4, p. 214, and vol. 5, pp. 12, 25, 30, 100, 148, 155, 160 and 254.

CRUELTY TO HORSES.

The *Eastern Mail*, Waterville, Maine, has a capital article, on this subject, of which the following is a part:—

"Passing a blacksmith's shop, some time since, we stopped to admire a beautiful horse belonging to Mr. S., as it stood waiting for a set of shoes. No wonder that horse was a pet—and none but a bold man would dare abuse him in the presence of his owner. When the flies made him a little restive at the driving of the first nail, the smith flew into a passion, and dealt blow after blow with his hammer, with the fury of a madman. The owner did not know how that blood came upon his horse's nose, or those bunches upon his ribs—but we did.

It is doubtless a legal question—it is certainly a moral one—how far a man has a right to vent his fury upon a 'balky' or a vicious horse. We say fury, because nothing renders a passionate man so frantic as a contrary horse. We have seen a mere looker-on turn pale with anger; while the man with the whip would foam at the mouth like a rabid dog. To those who have not seen it, this is, beyond credit; to those who have, it is strange. For such men the law against cruelty to animals was provided; and upon all such it is the positive duty of the ministers of the law to see it executed."

☞ The GRANITE FARMER, Manchester, N. H., has been enlarged, united with the *Monthly Visitor*, and secured the services of LEVI BARTLETT, Esq., of Warner, as Associate Editor. Mr. B. is a good farmer, and vigorous writer, as all who have read his articles in the *Journal of Agriculture* well know. He understands *Chemistry* in its relations to agriculture better than most of us who are interested in the subject. We have no doubt his articles will give great additional value to the *Farmer*.

For the New England Farmer.

FARMING IN NEW ENGLAND—No. 2.

The great obstacles to the successful prosecution of agriculture in New England, are generally supposed to be our *hard soil and unfavorable climate*. But as these obstacles are triumphantly surmounted by many of our farmers, it proves that they can be by others; and that our *real* difficulties are more recondite and farther removed from the popular apprehension. Two or three of these will be specified, and one of them I believe to be the *moving, nomadic character* of our population. I do not know that the data can anywhere be found, which would show precisely *what proportion* of the farms in New England are now owned by the descendants of their earliest proprietors. From a somewhat extensive observation, and considerable reflection on the subject, I am satisfied that but a *small per centage* of our farms are now in the hands of the families, which felled the forests which originally covered them. In very many cases they have been sold, and re-sold, and sold again, and their original proprietors and all their descendants have alike disappeared from among us. This spirit of restlessness, of dissatisfaction with our present condition, and desire to improve it by change, is attempted to be sanctified by calling it the *spirit of the age*, or *indomitable Yankee enterprise*. The rich prairies of the West, the "baseless fabric" of the golden visions of California, or a tempting clerkship of three hundred a year on Washington Street or Broadway, have exerted a most disastrous influence on everything like *permanence and progressive increase* in the farming operations of New England. In Great Britain, France, Flanders and Germany, where agriculture is carried to greater perfection than anywhere else, there exists among the owners of the soil, the strongest possible attachment to the freeholds, great or small, which they cultivate, and which their fathers for centuries cultivated before them.

This strong and laudable attachment to one's earliest home, the play-ground of his infancy, the scene of his youthful labors, the arbor of his wedded love, the nursery of his children, and the sepulchre of his fathers, which is native to every human heart, has long been violated by the migratory habits of New England: and this violation of so sacred a tie has inflicted an incalculable injury on the persevering industry and cumulative prosperity of our farmers. Mungo Park tells us how strong this natural love for the spot of one's birth is in the heart of the African negro; "To him no water is sweet but that which is drawn from his own well, and no shade refreshing but the tabba tree of his native dwelling. When carried into captivity, he never ceases to languish during his exile, seizes the first moment to escape, rebuilds with haste his fallen hut, and exults to see the smoke ascend again from his native village." In France, the same feeling is observed, and Arthur Young long ago remarked that it "continues undiminished in strength, though the freehold is reduced to the *fraction of a tree*." Bishop Heber tells us that in Ceylon, the attachment of the cultivators to their *little* properties is such, that "it is not unusual to see a man the proprietor of the *hundred and fiftieth part of a single tree*." In Canada, too, this local attachment among the *habitans* of French descent still

operates with such force, that population multiplies *inward* not *outward*, and cultivators divide and subdivide their freeholds among their children, and cultivate them more and more highly from generation to generation.

Now, although this feeling has doubtless become excessive in older countries, and therefore fetters enterprise and compresses the range of the intellectual powers, it is quite certain that we have long been going off into the opposite extreme. With us almost every man is anxious to sell his farm, or cut it up into building lots. The papers are crowded with advertisements of "Farms for Sale;" many are sold which are never advertised, and many more would be, if purchasers could be found. It would seem from this popular movement as if there were about to be a general exodus of the farming population of New England—a stampede of almost the entire class to some fabled garden of Hesperides in Wisconsin, or some El Dorado in Australia. Multitudes are anxious to convert their farms into cash—to *realize*, as the phrase is; and after selling out their paternal acres and investing the proceeds in articles or projects of moonshine, of which there are always enough at hand, they, in the end, begin to *realize* that they are fools, and that they will be likely to die in the poor-house. Not a few of our farmers seem to be cousins to the "squatters" at the West, who cultivate farms only for the purpose of making some improvements, and of selling them to the first bidder, to dash into a wilderness still more Western, and try the experiment over again. Or, to use a more appropriate similitude, they rather resemble the wandering Arab, who settles down upon one oasis till he *exhausts* it, and then removes to another, to repeat the same impoverishing process. The Bedouens of the desert are not very celebrated for agricultural thrift, and the Bedouens of New England, with good reason, are not much more so.

Further views of the subject will soon follow.

Waltham, Feb., 1854.

D. C.

For the New England Farmer.

WHEAT—45 BUSHELS PER ACRE.

MR. BROWN:—Knowing that facts are better than theory, to convince the understanding, I alluded, in a former communication to the *fact* of having raised about fifteen bushels of wheat on fifty-four square rods of ground, or at the rate of nearly forty-five bushels to the acre.

You ask me to give the details of my management. You shall have them, though they may not be so definite in some things as I should like—and here I would say, that it was not in 1853, but 51, that I raised the wheat alluded to. My usual mode is to break up the ground and manure and plant it two years; and then to seed down with wheat, barley or oats. When with wheat, I put on more or less ashes, and by this means I usually succeed in raising fair, and sometimes large crops of wheat.

The piece of ground on which I raised the fifteen bushels, was on a hill gently sloping south—soil deep and warm—plowed, and planted with potatoes the first year, with five loads of stable manure spread over it. The second year, plowed in five loads of unfermented manure, and put six of well rotted manure in the hill and planted with

corn. Crops heavy both years. The third year, plowed and sowed about three pecks of wheat the first week in May, plowed *deep* and *fine*. Fineness of pulverization I consider very essential to insure a good crop. Levelled the furrows with a light harrow, sowed and harrowed once each way. I do not like to run over my fields when I get them plowed up light and fine, with too many such things as harrows, brush, rollers, &c. So I take that which does the work best with the least trouble. When the wheat had got up two or three inches, I sowed on about six bushels of ashes just before a light shower. Harvested about the first week in September. My hired man, who was a Canadian, remarked to me when reaping it, that he had "*rept* a great deal of wheat in *Carnada*, but this was the *huviest* he ever *seed*." And in fact it was the heaviest that I ever saw. The straw was not so tall or so large as I have seen a great many times. It was stiff, hard and small, so that it did not lodge at all, notwithstanding it was very thick and the heads so heavy. The wheat was very nice and plump. The amount might be a trifle more, or a trifle less than fifteen bushels; it was not measured very exact.

We have raised at the rate of between thirty and forty bushels to the acre before. The kind of wheat which I sowed is very superior, and is said to have been brought from the vicinity of Hudson's Bay; I know not with what truth. I think much of *fine pulverization*, and ashes, for growing wheat, in fact for growing any kind of crop. I have made quite a number of experiments with ashes, gypsum, lime, &c. The experiments generally turn in favor of ashes.

J. T. W.

Marlboro', N. H.

For the New England Farmer.

BEE-CULTURE—No. 2.

It is evident to every experienced apiarian that bee-culture is carried on to a very limited extent in this country, compared with the facilities which are afforded for its most successful prosecution. As he looks abroad on our cultivated fields, upon our hills and valleys extending from Mexico to Canada, and from the Atlantic to the Pacific, something like a painful sensation comes over him as he is compelled to witness an entire loss of vast quantities of honey on every side, which, without injury to any one, might be gathered, if bees in sufficient numbers were set at work under a proper and well regulated system of bee-culture. Here he discovers a vast source of wealth, the smallest fractional part of which has scarcely been secured. This state of the case brings to his mind most forcibly the causes which operate to produce this result. These causes I shall denominate,

OBSTACLES TO BEE-CULTURE.

The first which I shall name is the *want of adequate knowledge* in reference to the peculiar habits and economy of the Honey Bee.

It is not at all surprising that very little should be known relative to the nature and operations of bees, when we consider the circumstances in which they have been placed, or the mode of culture which has been adopted. The bee-hive has been, to a great extent, a dark apartment. There are commendable exceptions to this, but they are few and far between. By far the great majority of hives now in use are as dark and as far removed

from the inspection of the bee-keeper as the cave in which the hyena dwells. Travel in almost any direction and enumerate the hives which are thus dark, and at the same time mark those which are so constructed as to give the keeper even a tolerable view of the interior, and you will find the proportion of the latter compared with the former extremely small. In many instances those which pretend to give us a view of the interior are so ill adapted to this purpose as only to tantalize our earnest search after further light and knowledge. Add to this darkness of the hive another fact, viz.: that a majority of bee-keepers read very little and reflect less, and experiment less upon their bees, and you have a solution of this matter, or can understand why it is that such erroneous views are extensively prevalent, and absolute ignorance also where enlightened views ought to be entertained. I have often been surprised at the degree of ignorance which exists among persons who have been bee-keepers for years. Some of them know as little respecting their peculiar habits as if they had never kept them. In these circumstances a very serious obstacle exists to the adoption of any enlightened and successful system of bee-culture, and this obstacle is not to be removed except by an application to the appropriate remedy or remedies. Hives are to be differently constructed. Information is to be sought. Experiments are to be made. In other words, a different mode of bee-culture is to be adopted. Such a result can be anticipated only in connexion with adequate knowledge in reference to Beeology.

North Bridgewater.

For the New England Farmer.

MORE LIGHT WANTED.

MR. EDITOR:—I think much of your paper. I have in my care a few acres of good land, and wish to make it all produce at the best possible advantage. I wish for more light. What is the best mode for a poor man to pursue in regard to making his land produce the most with the least labor and expense? Please give information to one who beholds the light just beaming, what is the best mode of laying round cobble stones for fence?

JOSIAH A. FRENCH.

North Clarendon, Vt.

REMARKS.—Here is a fine opportunity for some of our correspondents of experience to increase the "light just beaming" upon the endeavors of the inquirer.

For the New England Farmer.

OYSTER SHELL LIME.

MR. EDITOR:—In your paper of Dec. 3d, the inquiry is made in relation to oyster shell lime as a cement. I have used it in laying the walls of more than twenty cellars, and have found that it answers very well. It sets equally as well as the stone lime, and I think it is, at least for this purpose, equal to the best—and as its cost is only about one third that of the stone lime, it is preferable. It will bear the addition of more sand. The proportions should be about 5 parts sand to one of lime.

BENJ. PAGE, Stone Mason.

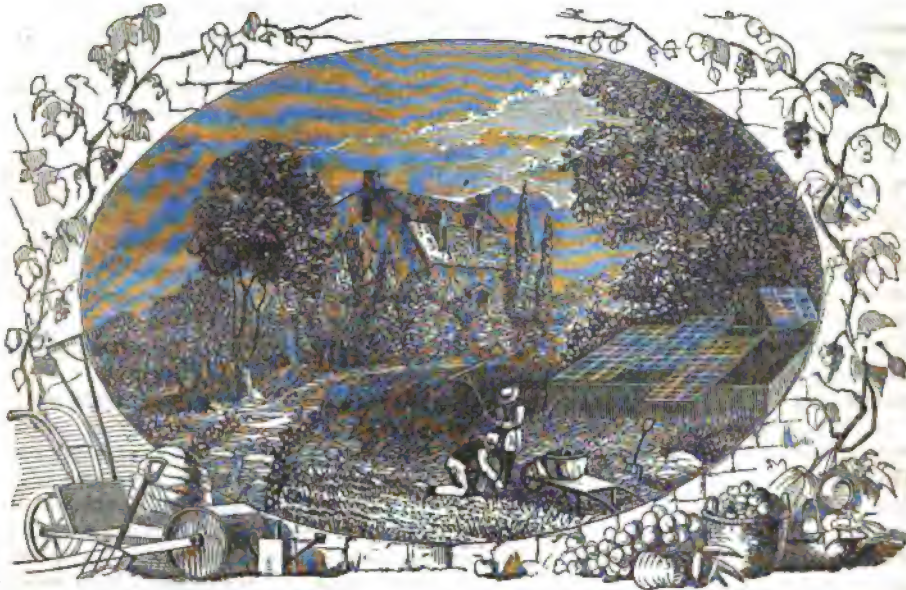
Charlestown, Jan., 1854.

GARDEN WORK.

We introduce the annexed engraving as an embellishment to these pages, (as it suggests many agreeable reflections) and as an incentive to prompt and vigorous preparations for the *Garden Work* which will soon call for your attention. With a plan of the garden spread out before you, it will be easy to decide where each bed, shrub, tree, flowers, roots, vines, &c., shall be placed, and when

the whole are arranged on paper, if any change seems desirable, it will be much easier to make it there than by removing the plants themselves, or altering beds, borders and walks.

It is very important in gardening, even in the common kitchen garden, that the ground should be laid out in convenient form, and so remain from year to year. Straight lines will be found the



cheapest and easiest kept; but curved lines may be occasionally introduced, which will set off the appearance of the garden considerably, and without incurring much expense. A border, from five to ten feet wide round the whole, if the grounds are not very extensive, will be found very convenient. Next to this there should be a walk of liberal width and the centre divided into squares with such walks as will allow the whole to be reached without treading too much over the planted ground.

It is best that this order should be observed even in a garden of the humblest pretensions, as it will afford greater convenience for cultivation, will not call for new *engineering* every spring to say what shall be done in its various departments, and the same spaces may be planted with the same vegetables indefinitely, if it is desired, if the soil is annually enriched.

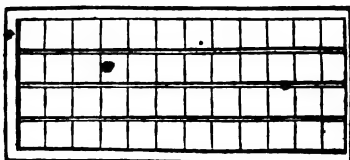


FIG. 2.

SASH LIGHTS, Fig. 2, should be made of well seasoned wood about 1 1/2 inches thick, the glass thick, about 7 by 12 inches, and lapped so as to shed the rain. Their form, and manner of placing them on the hot bed are pretty well represented in the large engraving above.



FIG. 3.

The HAND GLASS, Fig. 3, is a glass case, with a pyramidal-shaped cover, and is used for forwarding early plants, or sheltering such as are taken from the hot-bed and set out in an open compartment.

PERUVIAN GUANO.—The Peruvian Government Agent for the sale of *Guano* in Baltimore, has advanced the price \$4 per ton, and has also given notice that in future no sales will be made in lots of less than fifty tons, so that the trade will now fall into the hands of commission merchants. The newspapers recommend that prompt action be taken by this government to reduce the price of this great agricultural fertilizer. Within the past winter several cargoes of the article have been lost

on the coast, and it is said the supply will not meet the demands of the farmers for spring consumption.

TRANSACTIONS OF THE N. Y. STATE AGRICULTURAL SOCIETY.

Through the politeness of the Secretary of this Society, B. P. JOHNSON, Esq., we have received a copy of its Transactions for the year 1852. It is a noble volume, and worthy of the Empire State. It has some faults, and among them, not the least is the manner in which it is printed. The exceedingly rich materials gathered at so much expense, should have been clothed in fairer habiliments.

From the report of the Secretary, we learn several interesting facts; and

1. That the general progress of agriculture and the mechanic arts connected therewith, is of a highly satisfactory character.

2. That increased attention is being paid to the important subject of draining—that one man—whose name ought to be recorded—ROBERT J. SWAN, of Fayette, Seneca Co., has laid 17 miles and 16 rods of covered drains, from 30 to 36 inches deep—all laid with draining tiles during the last year.

3. That the wheat crop has diminished, and the crops of corn, oats and barley largely increased. The same facts respecting the grain crop we believe are true throughout the Eastern States. Experience has shown that we can compete with the Western States in the produce of corn, oats and barley, but not of wheat.

4. That the products of the dairy have increased largely, viz., butter, 264,361 lbs., and cheese, 12,991,437 lbs. These results are truly surprising when it is remembered that the number of milch cows has diminished, since the last State census by the large figure of 68,066. These figures demonstrate that the character of the dairy animals has been very greatly improved.

5. That under the direction of the agricultural society, surveys of the several counties in the State, are being made—one or more yearly. During the year the survey of the county of Essex has been completed by WINSLOW C. WATSON, Esq. This county lies in the northeast portion of the State, borders on Lake Champlain, and includes Mount Maray and part of Adirondac. The county is found to be rich in mineral treasures, and especially in a mineral that is of immense value to agriculture, viz.: *phosphate of lime*—and this is said to exist to an extent “commensurate with the demand of the world.” This article, we believe, was discovered in this locality about the same time that it was in New Jersey; 100 tons of superior quality had been sent to the seaboard in 1852. Providence is thus furnishing a supply of fertilizers, to meet the demand resulting from

an increase of population. The agricultural survey of the several counties of a State like New York, containing so great diversity of soils, is one of immense importance to the prosperity of the State. Indeed, we cannot well see how its resources can be fully developed without it. It must demand great labor and much time, but we trust the liberality of the State will not fail until it is fully completed. It will be a lasting monument to the wisdom of the State.

6. That there was a trial of the various farm implements, and machines, made in July, 1852, at Geneva, which continued 8 days, and was attended by manufacturers and distinguished cultivators. This meeting was one of great interest and importance, but we have not space to refer to the results.

7. That the Society keeps an eye upon the movements that are taking place in various parts of the world, in the matter of agriculture, and exchanges its Transactions with the principal agricultural societies of Europe. Even the Sandwich Islands have not been overlooked in this respect.

8. That the amount of premiums paid at Utica was \$7,500, and the amount paid at the winter exhibition of fat stock and seeds, was \$1,800 more!

9. That the Fair held at Utica continued four days, and was of a highly gratifying character. The Address by HORATIO SEYMOUR, is one of great interest. The leading thought contained in it is embraced in one short sentence. *Like the steam in the engine, public sentiment is the great source of action.*

The volume contains several highly interesting and valuable reports, upon important subjects connected with agriculture. One upon breeding stock, and one upon curing and packing beef and pork, contain much information. But the one that most strongly arrested our attention, is the analysis, by Dr. J. H. SALISBURY, of several common vegetables, as the beet, carrot, melon, &c. We trust the Dr. will continue the good work which he has commenced, and give us analyses not only of the various roots, but of the grains, and especially of that most important of all plants in American husbandry, the *Indian corn*, not only of the grain, but of the whole plant. We have never seen a satisfactory analysis of this plant, made upon our own soil. We want American analyses of American plants. Every one who has attended to the subject, knows that plants grown in different soils and under different climatic influences differ widely in their proximate elements. The analyses of grains and plants grown in Germany and England yield for us only approximations to the truth. A portion, and a liberal portion too, of the funds of the society cannot be better appropriated than in securing such analyses.

The almost innumerable articles entered for premiums at the State Fair, is a striking feature in the New York exhibitions. The range is a wide one from Devon bulls and mowing machines, to bead purses and rat-traps. But then they have \$9000 to distribute, a much larger sum than has any agricultural society in the Union, and they can embrace a long list of productions, and mechanical inventions and improvements.

In addition to the report of the State Society, the volume comprises an abstract of the reports of forty-five county societies, a work of immense labor, and one which demonstrates the industry and perseverance of the Secretary of the State Society. The volume closes with the Survey of Essex County, a document of great interest as well as great value.

This volume is one which the Society may send with pride to the various societies with which it is in correspondence, in Europe and in this country. It may be taken as an index of the march of improvement which the State is making, not only in agriculture but in all the arts of life.

LEGISLATIVE AGRICULTURAL SOCIETY.

ENTHUSIASM AMONGST FARMERS.

We copy the following well-considered and timely remarks from the *Connecticut Valley Farmer and Mechanic*, published at Springfield. Mr. CALHOUN, its able Editor, has attended many of these meetings, and can speak advisedly of their worth. We beg our readers, too, to ponder well what he says in regard to making the business of agriculture more of a study. A good plow never was designed without months, perhaps years, of close study, and to drain well a field is as scientific an operation as to contrive a good plow. Read, brothers, read; you who have not practised it cannot be aware of the power it will give you over the resisting soil.

"As the Legislature contains a large proportion of farmers, the Agricultural society has been reorganized to give them an opportunity to confer together, and to discuss, with the aid of such scientific gentlemen as may be induced to attend their meetings, matters that are of interest and value in the farmer's profession and pursuits.—There can be no doubt that these Legislative Agricultural meetings have been of great benefit.—Whatever crudities may occasionally be uttered, there has always been a substantial amount of good sense and practical experience, which have characterized their doings. A favorable effect on thinking minds is always discernable; for enough is said at every meeting to awaken thought and investigation.

These meetings have been kept up for a long series of years; and it would be an ill omen to the farmer if they should be discontinued. During the period of their existence, valuable improvements in the business of farming have been sug-

gested, and many have been introduced to good advantage. These meetings afford an opportunity for mutual consultation, which ought not to be overlooked, and yet it is certainly true, that farmers have not availed themselves of such an opportunity to anything like the extent which might reasonably be supposed. It is not an easy thing to excite even a proper degree of enthusiasm amongst farmers. They are not easily moved, and we believe one great cause for this is, that they do not read agricultural books—do not make agriculture a study, largely enough to give an earnest impulse to their thoughts. They are apt to look at their pursuit simply in its practical aspects. This is the most important view to be taken of farming, it is true; but there are a great many elements in it which are not regarded in a just light, and this can only be done by reading and study. We are very sure there is nothing in the whole range of study so well calculated to interest the thoughtful and studious as the principles of agriculture. All science is made tributary; and the whole business of life is embodied in it.—Why should not then the farmer be enthusiastic? The time is coming when he *will* be, when he *must* be. Every where are to be found,—both in this country and in England, additional instances of the most true-spirited and chastened enthusiasm.

This feeling may be cherished by associations—such as the Legislative society we have spoken of; and by the various county societies, and the clubs which are beginning to find a firm foothold in very many of our best farming towns. But the true source of genuine enthusiasm, after all, is private study, to which we earnestly entreat our farmers—especially our young farmers, to give themselves diligently and systematically."

For the New England Farmer.

LEGISLATIVE FARMERS.

On looking over the remarks reported to have been made at the First Agricultural meeting, I endeavored to distinguish those made by gentlemen belonging to some branch of the present government of the State. The executive department were among the missing. The Senators were not there—and if anybody belonging to the House, said anything, I have not the pleasure of knowing them in that capacity. Perhaps as this was the *first meeting*, they might not feel quite prepared to display their knowledge, and perhaps as so many of the members of the *Board of Agriculture* were there, who are presumed, *ex officio*, to have some knowledge of the subject discussed; that the talking men of the Senate and the House, might hold back for this reason. I think it but fair, that these officials should have an opportunity to display their knowledge, at these meetings—and that the people should have an opportunity to learn what they do know. Men often acquire a reputation for wisdom, by keeping their mouths closed. There is a time for *speaking*, as well as for *silence*—and while these meetings are in session, is the time for those who know anything, to let it out—those who do not know, are wise in not presuming to speak.

X.

To CORRESPONDENTS.—Several valuable communications are on hand, which shall have respectful attention, in good time. We are under re-

newed obligations to correspondents, and would say that when communications are delayed, (as they sometimes are for months) it is usually for one of two reasons; either that they are, in miller fashion, waiting their turn, or are postponed to a season when they will be more applicable and have more force.

CULTIVATION OF ROOTS.

MR. EDITOR:—Though much has been said and much more written on the importance of the culture of the various root crops to the farmers of New England, yet, but very few, comparatively, of the great mass of the farming community, have, to any considerable extent, practically tested their value. Too many are contented with the same old routine of farm crops, and the mode of their culture adopted by their fathers who have gone before them,—or possess too little enterprise and energy to attempt improvement. Ours is a day of progress, as well in relation to the produce of the farmer, as it is of the manufactory of the hundreds of new and useful fabrics and implements that are turned out from the factories and workshops. I know many farmers will give you the stereotyped answer to all your suggestions of improvement: "My father did so and so, and was considered a good farmer;" "I don't know about all your new-fangled ideas about farming; I believe I am about as safe to keep on in the old path." Well, I know our fathers adopted many practices of industry and economy that their sons would do well to copy, but because that is true, I do not wish to return to the use of the old wooden plow, or to the old wood shovel, lined with some five pounds of iron. I do not wish to go back to the old well-curb, in a cold, January morning, eight or ten rods from the house, because our fathers had not discovered the lead aqueduct and the hydraulic ram. I have often heard my venerable grandfather say, that some seventy-five or eighty years since, a farmer living in Westminster, raised twenty-five bushels of potatoes, and the crop was considered so extravagant, that it made a "town talk;" but now some farmers raise nearly as many hundreds, and sell them all at a great profit. I know one neighborhood (I think all in one school district) where, a few years since, nine farmers raised on their own farms, fourteen thousand bushels of potatoes for the Boston market.

But to the culture of the carrot. Three topics seem to suggest themselves; their culture, their use and their profit. Soil should be selected that has been cultivated the year previous with corn, potatoes, or some other crop that has thoroughly pulverized the soil. Some have sown upon the ground just after turning the green sward. That is a mistake, as the unrotted sward prevents the root from penetrating a sufficient depth. The crop, everything else being the same, will not equal two-thirds as much as if sown upon pulverized soil cultivated the year previous with some other crop. The soil should be well manured.—Put from twenty to twenty-five cart loads of well rotted manure upon the acre. It should be plowed, ten inches in depth, as early as the season will allow, taking care to spread the manure as even as may be before plowing. The soil should be well plowed twice, and thoroughly harrowed

before sowing. The land should be good, friable, soil, not necessarily rich, as experience has taught me that as many can be raised on deep, sandy loam, as on "rich bottom land." The top of the land should be thoroughly pulverized with the head of an iron-tooth or wooden rake. The seed should be sown with a machine (if you have twelve square rods, as it will save expense) as soon as from the 20th to the 25th of May, if the season and soil will allow. The drills should be from fourteen to seventeen inches wide. They should be wed with a hoe some three times; the first should occur as soon as the young plants can be seen in the drills, if the ground is at all inclined to weeds, as a "stitch in time will save nine."

The use of the carrot, as of course, its culture, has, till within a few years, been very limited. It was used almost exclusively for culinary purposes, as no farmer then dreamed of feeding them to animals. Of course, half a square rod sown in the garden would produce an abundant supply for a large family. Now, many farmers in Worcester county, raise from one-eighth of an acre to an acre or more, and feed them to all kind of neat stock, horses and swine. They are the best of any of the root crops that I have ever tried, (though I have not cultivated the beet, which is, undoubtedly, very valuable), especially, for breeding cows and swine, as they require more liquid than animals that are fallow or fattening. I think they are worth more for swine, bushel for bushel, than potatoes. They possess less of the starch and more of the saccharine. The latter is the most nutritious, though I do not now recollect the comparison by a chemical analysis. For a number of years past, I have kept my swine almost exclusively on carrots through the winter season, and never had them do better.

Now for the profit. That is the Yankee's test of the propriety of almost everything. The expense of land, rent, manure, culture and gathering, as presented by the competitors in the Fitchburg Agricultural and Industrial Association, ranged from ten to fifteen dollars per eighth of an acre. That or more was the amount required for premiums. The average produce was about 112 to 115 bushels. I raised on 43 square rods (219½) two hundred and nineteen and a half bushels, or about eight hundred bushels to the acre. I recently sold 30 bushels, 57 pounds to the bushel, for 33 cents per bushel, which I considered very low. Now for the clean profits. The expense per acre is about \$96, and the carrots, at 33 cents per bushel only, amount to \$264, leaving a net profit on a single acre of land to equal, if not exceeding, the annual value of the aggregate farms in New England.

The fact is, we have begun to develop the capabilities of the earth to produce food for man and beast. I do not doubt the abilities of the soil of our country alone to produce an abundance for all the wants of five hundred human millions of beings—more than half of the present population of the globe, and I believe an all-wise and benignant Father will yet thus people this green carpeted earth, not only on this continent, but on every rod of soil of the globe. But I must stop. Let me just say, however, that if I can find some leisure evening, and shall not be regarded as an intruder upon the time of yourself or readers, I would like to say a few words upon another branch

of farming, far more important to the happiness and profit of New England farmers than the one we have been considering. I mean fruit raising.

JOSHUA T. EVERETT.

Everettville, Westminster, Jan. 15, 1853.

Fitchburg Sentinel.

FARMERS IN PUBLIC PLACES.

The press has been burdened of late years with lectures and sermons and satires, addressed to agriculturists, reprobating the fact that, on public occasions, as cattle-shows, &c., when speeches are to be made, they fall into the rear, and speak only by proxy. Facts are as stated. We have a word to say as to their propriety.

We remember that Lord Mansfield is reported to have said that he should be as much ashamed to know statute law as not to know common law. The reason is obvious. Statutes are constantly changing, and not one in a hundred is ever called to the notice of a lawyer. Hence, to study them so as thoroughly to understand them in all their relations, would be time thrown away, and labor without profit.

It is so, in our opinion, with the entire catalogue of working-men. If any one has the "gift" of public speaking without study, or experience, or science, we know not why he may not *show it up*. For the sake of the bar and the pulpit, and for their clients' and hearers' sake, we wish this faculty did "come by nature." But we are persuaded that it is not thus that men are eloquent, or persuasive, or instructive. Such qualities are only the result of much reading, of careful and close study, and no little experience. Hence, if farmers do make speeches, the presumption is, that the result will be about as happy as if a lawyer were to undertake some of the most difficult and intricate of farmer's work, or a clergyman were to undertake to play mechanic.

True, we have some lawyers and some doctors, and some men of leisure, who enrol themselves on the list of farmers. Some are educated at college, or other equally useful institutions, so as to make them conversant with language and science; and thus, and *thus only*, are competent to acquit themselves handsomely in public speaking.

But not one half the lawyers, nor one-half the minister, nor one half the doctors, can make a good speech at a dinner-table, or at a public anniversary. Our Benevolent Societies, annually meeting in New York and Boston, are obliged to use over their old stock, and that, too, several times within our own recollection, and even then fail to sustain the interest with which they first began. This is a matter of notoriety. Under such circumstances, to laugh at farmers for not exposing themselves as volunteer bores, is far from being judicious or in good taste.

The farmer who toils all day, and at night makes plans for to-morrow, how can he be expected to become a good and acceptable speaker? If he has acquired the art before he becomes a farmer, or the mechanic before he becomes a working mechanic, it is all well. We wish many, a multitude, might thus qualify themselves before they commence these arduous pursuits.

Besides, our farmers are proverbially modest men. Different causes conspire to make them so. We should regret a change, and nothing would so thoroughly effect this change as frequent public

debate. We have known a few absolutely ruined by this very process. They "outgrew their shoes." They substantially outgrew their dresses and their entire habits, and, like some of old, did nothing but hear or tell some new, and yet thrice told story.

We commend these considerations to our agricultural friends, and to the press. It is not necessary to be a good public speaker in order to be a MAN. At the same time, some of our most fluent "orators" are, and are regarded as, very small men, while those who are always speaking in public are always laughed at. Of this, the last, we never knew an exception.—*Plough, Loom and Anvil.*

AGRICULTURAL STATISTICS.

In the October number of this journal, on page 315, in a notice of the value of domestic animals in the United States, as shown by the last census, it is stated that "Vermont stands highest on the list of the Northern States; the estimated value of her live stock was \$12,643,228. That of Massachusetts was \$9,647,710."

So far is Vermont from "standing highest on the list of Northern States" in the value of live stock, that she possesses only *one-sixth* as much as the State of New York. The latter returned \$73,570,499; while the six New England States returned only \$42,400,222.

New York has about seventy per cent. more capital invested in live stock than either Ohio or Pennsylvania. If any one is curious to learn in what part of the United States may be found 500,000 acres of improved land in a body that yield the greatest value per acre, he will find them not close to any of the Atlantic cities from Boston to New Orleans, not in New England, Ohio, nor in any of the rich farming districts at the West or South, but in Western New York, and mainly in the valley of the Genesee. To make a farm produce its maximum in money, is itself a profound study. The farmers of Monroe county have this day over \$800,000 invested in farm implements and labor-saving machines. They are just beginning to view the art and science of production in their true light.

D. LEE.

—*Southern Cultivator.*

FINE CORN CROP.

Mr. GEORGE W. WINSLOW, of Epping, N. H. tells us below how he raised about 114 bushels of corn to the acre.

"This field of corn was remarked, by good practical farmers, to be the evenest lot of equal size, (one acre and 113 rods), ever seen. Few if any hills were missing on the field; and three ears only, were seldom found on a hill: on most of the hills were four and five ears, and on many there were six, seven and eight; making five ears, I think, a low estimate for the average. The hills were three feet apart each way, giving 4,840 hills to the acre, which multiplied by 5, the number of ears on a hill, giving 24,200 ears on an acre. I have ascertained by shelling and counting that 212 ears only, are required for a bushel of shelled corn. Now divide the number of ears on an acre, (24,200) by 212, the number required for a bushel, and it gives 114 bushels and about 6 quarts to the acre.

—*Exeter News-Letter.*

KINGS OF THE SOIL.

Black sin may nestle below a crest,
And crime below a crown ;
As good hearts beat 'neath a fustian vest,
As under a silken gown.
Shall tales be told of the chiefs who sold
Their sinews to crush and kill,
And never a word be sung or heard
Of the men who reap and till ?
I bow in thanks to the sturdy throng
Who greet the young morn with toil ;
And the burden I give my earnest song
Shall be this—The Kings of the Soil !
Then sing for the Kings who have no crown,
But the blue sky o'er their head ;—
Never Sultan or Dey had such power as they,
To withhold or to offer bread !

Proud ships may hold both silver and gold,
The wealth of a distant strand ;
But ships would rot, and be valued not,
Were there none to till the land.
The wildest heath and the wildest brake
Are rich as the richest fleet,
For they gladden the wild birds when they wake,
And give them food to eat.
And with willing hand, and spade, and plow,
The gladdening hour shall come,
When that which is called the "waste land" now
Shall ring with the "Harvest Home."
Then sing for the Kings who have no crown
But the blue sky o'er their head ;—
Neither Sultan or Dey had such power as they
To withhold or to offer bread.

I value him whose foot can tread
By the corn his hand has sown ;
When he hears the stir of the yellow reed,
It is more than music's tone.
There are prophet-sounds that stir the grain,
When its golden stalks shoot up ;
Voices that tell how a world of men
Shall daily dine and sup.
Then shame ! oh, shame on the miser creed
Which holds back praise or pay
From the men whose hands make rich the land—
For who earn it more than they ?
Then sing for the Kings who have no crown
But the blue sky o'er their head ;
Never Sultan or Dey had such power as they,
To withhold or to offer bread.

The poet hath gladden'd with song the past,
And still sweetly he striketh the string,
But a brighter light on him is cast
Who can plow as well as sing.
The wand of Burns had a double power
To soften the common heart,
Since with harp and spade, in a double trade,
He shared a common part.
Rome lavished fame on the yeoman's name
Who banished her deep distress ;
But had he ne'er quitted the field or plow,
His mission had scarce been less.
Then sing for the Kings who are mission'd all
To a toll that is rife with good ;—
Never Sultan or Dey had such power as they,
To withhold or to offer food. UNKNOWN.

SMOKELESS CHIMNEYS, AND SAVING THE PRODUCTS OF COMBUSTION.—Major Browne, of London, has recently patented an apparatus for preventing the egress of smoke from the tops of chimneys. The invention is applicable to old chimney shafts, or in the construction of new ones the top of the chimney is closed in, and at about half-way up in those of present construction an opening is made in the side as large as the structure

will allow. Outside this an iron box is firmly secured, in which is a foliated revolving cylinder, its axis placed horizontally, having a grooved pulley grooved to the motive power by which it is set in motion. The leaves of this cylinder are curved downwards in the direction of its rotation, to facilitate collecting and carrying downwards the solid particles of carbon, and the denser vapors into a tank beneath containing water, and in which it partially revolves. This tank has two openings, one to insert fresh water, the other to withdraw collected matters. When the smoke reaches the opening it comes within the immediate action of the draught by the rapid revolution of the vanes, and is quickly condensed in the cold water trough.

For the New England Farmer.

THE CURCULIO.

FRIEND BROWN :—Many plans have been proposed, at various times, by numerous individuals, to thwart the destructive operations of this enemy to the plum, or rather to those who love that delicious and very desirable fruit.

But that which has been effectual with others has proved a failure with me.

A late number of the *Farmer* contained several specifics, but none of them can hardly be ranked as "something new under the sun."

I have salted and resalted the trees, or rather the ground under them ; I have thrown air-slacked lime among the branches and blossoms, and that repeatedly, but the failure has been entire, the destruction has been complete.

I would even undertake to dislodge some of the nits, slow and tedious as the operation confessedly is, either by sunshine or moonlight, could I be thus sure of a few handfuls of delicious plums. But I do not despair, for the rogue must quit or run the risk of being taken at a pinch. And yet he is, evidently, rather a shy fellow, for the first one that I ever saw was last summer ; passing under a tree one morning, I discovered him perched on a plum, and if he did not leave his mark on the age, he certainly did on the green gage.

Burrillville, R. I., 2d Mo. 1st, 1854. J. S.

COMPOUND INTEREST.—Some of the natives of Africa, although they may have little pretensions to a knowledge of mathematics in general, seem to have a very clear and comprehensive idea of the principles of compound interest. This appears from the facts stated in a report of a select committee at a British post, on the customs of a tribe in the vicinity. According to this report, if one native stole a fowl from another, the owner, if he had witnesses of the facts, would suffer the matter to rest for two or three years. He would then institute an action for damages, which are measured by this curious standard : It was in the first place calculated how many eggs these fowls would probably have laid in the course of one or two years—how many of these would have been hatched, how many of these chickens would themselves have become parents, for the period of time between the commission of the robbery and the conviction of the offender. For this imaginary wrong, damages have been given to the fullest extent, and husbands and wives, and whole families, sold to requite the owner of the fowls for his loss. —*Boston Journal.*

For the New England Farmer.

THE "WITCH HAZEL."

MR. EDITOR:—I would inquire of you, as a man of science and a person of experience, what dependence can be placed in the dipping of the Witch Hazel for determining water courses; or, in short, whether this so called "water philosophy" amounts to anything more, after all, than a simple deception? It has long been believed by many that the Witch Hazel, properly held, will veritably indicate the courses of living water in the earth. And I call attention more particularly to this matter, since I find this belief authenticated in a late Patent Office Report, in an article on "Well Digging," (p. 14) where the matter is described as an electrical phenomenon. Yours, R. H. H.

REMARKS.—We have searched the books in vain for some account of the theory that the "Witch Hazel" will dip, or incline to the ground, when held over subterranean water courses, or deposits of the precious metals. The idea is an old one, as we find it alluded to in some of the English books, but can find no account of its origin. A gentleman whose well-balanced mind is rarely disturbed by theories that are not sustained, at least, by some sound reasons, once told us that in company with about twenty other persons, he made experiments with the Witch Hazel. A crooked bush about three feet long, was cut, and a branch of the crook held in each hand, the stick being held in a perpendicular position. A stream was flowing near by, but entirely covered, and on approaching it the hazel gradually inclined towards the water in repeated instances in the hands of five or six individuals of the party. He then, with another person, held the hands of him who carried the hazel, so that he could not bend or depress it in any way without his knowledge, and the result was the same, the rod saluted the ground! While in his own hands the rod did not change. After these experiments the rod was tried in the same manner in other places, but without its inclining to the earth. Such is his relation; we can add nothing that would add interest to it, or throw light upon the subject.

SHIP TIMBER.—Over three hundred oak trees, it is said, have recently been disposed of in Oakham, Mass., to ship builders from Maine, to constitute the frame of one ship. Some of the trees brought \$15 each on the stump. Mr. McKay, the builder of the Republic, lately burned in New York city, and brother of the commander of the same, is here from East Boston, exploring the timber lands of the farmers, and purchasing all the white oak that he can, for ship building, which he carries on at East Boston. He pays the farmers, we have been informed, \$12 per thousand, board measure, after the timber is hewn. A large quantity has been drawn to the depot, soon to be sent to its place of destination. Several car loads have already been forwarded from Belchertown. Mr. McKay, we understand, is procuring this timber to build another ship like the Republic. The timber thus

demand is becoming scarce, and is consequently very valuable. We hope that those who own such timber will not part with it, without a full equivalent. One farmer in this town, we understand, has sold three hundred trees, and several others, each a less number.—*Amherst Express*.

AN UNKNOWN RIVER.

A lieutenant of the French ship Armand has published in the *Revue Coloniale* a notice of the River Volta, one of the great rivers of Western Africa, north of the equator, and the source of which is in the mountains of King, not far from the sources of the two great affluents of the Niger. The notice is transferred to the *Courrier des Etats Unis*, from which we translate as follows:

Upon the two banks of the Volta may be seen an infinity of small villages densely peopled, especially upon the immediate shores. Fishing seems to be the sole employment of this numerous people. The beaches are covered with flakes for drying the fish previous to sending it into the interior, where it constitutes the principal food of the inhabitants. The river is deep and navigable to a very great extent.

The King, whose name is Aquananoo, is sole chief of this vast country, of which Adda is the capital. The population of this city, as far as can be judged from a cursory view, is about 2500. It possesses an organized army, of which the commander-in-chief is Toffoo.

The cessation of trade has reduced this people to great poverty. Accustomed to subsist upon the profits of trade, they have never cultivated the earth any farther than was required by their absolute necessities. Upon either bank of the river are vast forests of palm trees, from which the people might derive a magnificent product. Either from idleness, indifference, or the want of means of transportation, however, there appears to be but one individual in the whole country who has undertaken the manufacture of palm oil—and he without success.

The small quantity of oil produced is transported to Ooco, a town upon the border of the sea, about eight miles west of the Volta. The expenses of transportation and shipment absorb so much of the proceeds of the sale of this commodity that no encouragement is afforded for engaging in the manufacture.

The "oldest inhabitant" of this singular country does not remember ever to have seen a vessel in the Volta, deep and navigable as it is.—*Traveler*.

For the New England Farmer.

GREAT CROP OF SUGAR.

I shall take the liberty to boast a little of a maple tree only two feet three inches in diameter, standing on my farm in Rensselaer county, from which I made thirty-three pounds of sugar last spring.

In Hoosick township, as it hath appeared, There is a maple tree, from which you've heard; Which in one spring produced of sugar three and thirty pounds, Now beat this if you can, within the Bay State's bounds.

ELIHU CROSS.

Hoosick, Rens. Co., N. Y.

FOURTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, FEB. 8.

The meeting was called to order at 20 minutes past 7 o'clock, by Mr. FLINT, Secretary of the Board of Agriculture, and Hon. SETH SPRAGUE, of Duxbury, was invited to preside.

Dr. REYNOLDS, of Concord, was then introduced, and delivered an elaborate essay on Vegetable Chemistry. One of the great features brought out by an investigation of the laws of the vegetable world, said the lecturer, is their uniformity of production and chemical activity. There is no deviation from the pattern of the parent stock, without the intervention of art. The leaves of plants collect all the materials necessary to sustain life and produce fruit, the principal agent being carbonic acid. Water and ammonia are also decomposed in the leaves, and oxygen, hydrogen and nitrogen are thus obtained for nutriment. The great object of the cultivator should be to adapt the plant to the soil, and the soil to the plant. Each kind of plant furnishes its best manure in its own decomposition—that is, the decomposition of a vegetable, forms the best manure for that species of plants; as, for instance, decayed potato tops are the best manure for that esculent.

At the conclusion of Dr. REYNOLDS' address, Mr. Sprague announced the topic for the evening's discussion, viz:

Plows and Plowing—taking into view the form of the plow, the time and the manner of using it, and all incidents connected therewith.

Mr. SPRAGUE called upon Mr. HOWARD, of the *Cultivator*, to open the discussion.

Mr. HOWARD responded, and said he thought farmers were too apt to generalize from single facts. People speak of a plow of a particular form as meeting their uses best. He thought no arbitrary rule could be laid down for the pattern of such tools, because different crops and different kinds of land require different kinds of plowing—the same plow will not answer in all cases. Take a heavy, dense soil, it may need much pulverizing, while a light soil would be injured if the same system were pursued with it, because its carbonaceous properties, which nourish the plant, are dissolved and evaporated by exposing its texture too much to the action of the atmosphere. Consolidation is as important in some cases as pulverization in another, and plows should be selected with reference to this fact.

As to the depth of plowing, he noticed the same tendency to generalize from isolated cases. He was in favor of deep plowing and of shallow plowing,—but each in certain cases. The land and the crop must be taken into consideration. Some soils contain vegetable ingredients to a great depth; he knew of some in New York State which were

as rich at seven feet below, as at the surface, and of course cannot be plowed too deep. In New England the soils present a great contrast to this, and in his opinion extended experiments could alone settle the question of deep and shallow plowing. He suggested that our agricultural societies, and the Board of Agriculture also, should institute these experiments, by choosing committees to go into the county and select different fields to be plowed differently and with different plows, the results to be carefully compared, and an annual report made thereof.

Mr. KNOX, of Worcester county, a plow maker, was next called on to continue the discussion. He remarked that he had been engaged four or five years in manufacturing plows, and had experimented a good deal with them. There should be different plows for different kinds of soil, and the plow should be adapted to the depth of furrow desired. On sandy land a concave plow, with a series of longitudinally inclined plates, should be used, and the ground plowed quite deep. For clayey land a long convex plow should be used, which will give ease of motion and leave the furrow, so that in passing the air will readily escape. The Michigan subsoil plow is an improvement over the old fashioned kinds in the saving of labor, some farmers say to the amount of three to five dollars to the acre, because it leaves the ground very light; yet there is one disadvantage about them. In plowing deep they leave a dead ridge, this may be avoided by using the swivel plow. Another kind, the subsoil plow, used on mowing and pastures, works excellently, turning the ground over. The amount of grass cut from land treated in this way has been known to exceed by one-third that cut from adjoining land treated in the ordinary way.

Mr. STANLEY, from New Hampshire, thought it a good plan to turn up a little of the sterile soil each year, until 12 or 15 inches of good soil is obtained if desired. It is less trouble and expense than some imagine. His method is to plow around a piece, in order to avoid deep furrows; after taking off the grass, put in grain, and then begin where he left off before. This method kept the land free from ridges, and level. He approved of condensing light soils and loosening heavy soils.

Mr. SPRAGUE remarked that it was the opinion of Mr. Allen, of Pembroke, whom Mr. Webster called a model farmer, that plowed fields are injured by too much exposure in summer to the hot sun. Stirring the soil frequently tends to let off certain qualities which are necessary for the growth of plants. There is an idea prevalent among farmers that the soil cannot be stirred too much. He had known a large quantity of corn, which obtained a premium, to be raised on a sandy soil without hoeing at all; but the weeds were kept out of it.

Mr. HOWARD said the effects of stirring the soil differed, according to its composition. Soils should be stirred for two purposes—to permit the roots of the plant to penetrate it, and to accelerate the action of its nutritive qualities. He would stir all kinds of soil sufficiently to destroy the weeds. If he had corn on sandy land, he would stir the ground only enough to kill the weeds.

Dr. REYNOLDS believed it to be a well ascertained fact that stirring soils enabled them to absorb moisture. If corn curls up in dry weather, go through it with a cultivator, and it will be found that the leaves will unroll. If the season be dry, more corn will be obtained by hoeing it three or four times.

Mr. KNOX related the particulars of an experiment in plowing which came under his notice. In 1852, Thos. J. Fields, of Northfield, plowed three sections of a lot of land each a different depth, viz: 7 inches, 10 inches, and 10 inches with subsoil of 10 inches following, making 20 inches. He manured it all alike, and planted with corn, and obtained from the subsoil lot one-quarter more than from the 7 inch lot, and one eighth more than on the 10 inch lot. In 1853, he planted the whole with oats, plowing as before. The 7 inch lot, owing to the drought, produced a sickly, yellow looking crop, the 10 inch lot one rather better, and the subsoil lot produced a crop exceedingly thrifty and exuberant.

For the New England Farmer.

QUACKERY IN FARMING.

Messrs. EDITORS:—Quackery is defined as the “boastful pretensions, or mean practice, of an ignoramus, more particularly in the practice of medicine;” but I shall take the liberty to add a little to the dictionary definition of quackery, which I think has not comprehended and described all the characteristics of that truly conspicuous class of citizens called quacks. A quack, whether learned or unlearned, is a shrewd, selfish, designing, money-loving, flattering impostor, who has no regard for the truth, when his end can be better accomplished by lying; Proteus-like, he will assume the character of doctor, chemist, lawyer, clergyman, pedlar, politician, or any other character where there is a chance to gratify his unholy propensity at deception, and in fleehing money from unsuspecting and credulous people. Quack doctors have been notorious for their impositions and intrusive interference among the sick, since the annals of medicine, but quack chemists must have been of more modern origin, and at what period their change from the chrysalis form took place, we have no chronology to inform us. Quackery in any profession, is founded on dishonesty; no honest man will intentionally, ever be a quack. Farmers ought not to be included in that list of characters which make “boastful pretensions” to the disparagement of one of the most honorable callings instituted by the Almighty, but we have reason to fear “in a few cases,” in order to “keep up with the times,” the “compass

has varied” a *little*. Farmers have been noted for their open, communicative, undisguised honesty as a class of citizens, without secret fertilizers, or any other useful secrets, but what they took pleasure in communicating to their neighbors. Whether from ignorance or design a spurious article, designated by the name “patent” or otherwise, is imposed upon the farmer as a fertilizer, the act has the appearance of quackery, and shews a disposition to get money without rendering an equivalent.

A knowledge of chemistry has long been considered a necessary branch of a medical education, but its application to farming appears to have been of more recent date. From the days of Paracelsus to the present time, disputes have been kept alive between the chemists and Galenists, about the efficacy and safety of mineral medicines; now it is a matter of as much importance to the farmer, to continue the inquiry and ascertain the efficacy and value of mineral manures, as it is to physicians to know the value and use of minerals as medicines. We do not expect perfection in the professors of any art or science, for it is well known that the “best miss it sometimes,” but we have reason to look for honesty in those who profess to be instructors in all the useful arts, sciences and respectable professions. The idea is held up by some, that a fortune cannot be made without the practice of deception and humbuggery, but a gentleman cuts rather a sorry figure on being detected in such acts of meanness, and his friends are not unmindful of the favors of that sort shown them, in their confidence manifested towards him afterward. Self-styled doctors and traders have been noted for quackery and deception, probably, ever since sickness and exchange of commodities entered the world, but such ones, like Cain, have a mark set upon them, that people may know them; high-minded men never let themselves down to the practice of such miserable, mountebanking operations of deception. I believe in one instance of a man’s making his fortune by cheating, that two make their misfortunes, besides wearing tarnished characters, which would prevent carrying upright heads where there is a common degree of sensibility. But in conclusion of the whole matter, if the noble art of chemistry must be prostituted and made a vile instrument of imposture in the hands of designing men, one petition in the farmer’s prayers ought to be, from quack chemists “Good Lord deliver us.”

S. BROWN.

Wilmington, Dec., 1853.

For the New England Farmer.

PEAS AND TURNIPS.

MR. EDITOR:—I have a few rods of ground that I plant to peas before my other operations can well be performed upon the garden in the spring. When first out of the ground I bush them, and they grow so fast that they choke the weeds pretty thoroughly. Being the largest marrowfats, they are not fit for market until July 4 to 15, when they pay well. I immediately clear the ground, plow, and in August sow turnips in drills, having applied the guano before harrowing for the turnips. This crop is more benefited by hoeing than the peas. Where 35 bushels of peas grew last season, 100 bushels of turnips were obtained.

B. H. FRANKLIN.

Worcester, Feb., 1854.

CHEMISTRY OF PLANTS.

All substances, whether vegetable or animal, are composed mainly of four elements, viz.:—carbon, hydrogen, oxygen and nitrogen. These, by uniting in different ways, make up the vast variety of organic in nature. They are held together by the attraction they possess for each other, and are set free the moment this attraction is overcome, to form new compounds or to escape into the air. Every perfect seed contains within itself the rudiments of a new plant, and in some varieties so perfectly developed as to be discernable with a microscope, root, stem and leaves all complete. But wrapt up in the seed, the embryo awaits the action of external agents, being entirely at their disposal.

The embryo during the first stage of its growth derives its nourishment from the seed. In some seeds, that which immediately surrounds it, is insoluble in water, and therefore cannot afford any nourishment to the miniature plant until a change takes place. To obviate this difficulty, the seed when exposed to moisture and air, at a proper temperature, absorbs water and oxygen, chemical action begins, carbonic acid is given off, and new substance is formed, which possesses the power of changing starch to sugar when it is dissolved by the water, absorbed by the seed, and taken up as food by the growing germ, which transforms and appropriates substances to its own use, but as yet possesses no power to organize them. But as the young shoot appears above the ground it begins to act for itself. The principal chemical changes now take place in the leaf. They are the true lungs of the plant, "it being at once an organ of exhalation, digestion and respiration, corresponding to the skin, stomach and lungs of animals." The mineral elements of the earth, taken up by the roots and carried into the leaf by the circulating sap, are there united with gases that have been imbibed from the air to form food for the growing plant, or in other words become a part of it. Different substances are taken up by different plants, but the process is substantially the same, whether carried on in the humble blade of grass or in the mighty oak that has stood for centuries. The process of absorption by the roots and leaves goes on in the daytime with great rapidity. Hales found that a sunflower weighing three pounds exhaled from its leaves thirty ounces of water in a day. Evaporation takes place chiefly from the under side of the leaf, it being covered with little pores, varying in size in different plants, "in the apple leaf amounting to 24,000 to the square inch." [Gray.] They have a valve-like action, regulating evaporation, contracting when a small amount of moisture is supplied, and opening when it is large. Carbonic acid is also absorbed by the leaf, and there decomposed, the oxygen being thrown back into the air, while the carbon furnishes the solid elements of wood and enters largely into all compounds formed in the vegetable kingdom. Plants also possess the power of decomposing water and ammonia, by which process hydrogen, nitrogen and oxygen are produced, which together with the mineral matters, taken up by the roots, and circulated in the sap, furnish all the materials required by the plant.

The animal and vegetable world are intimately connected. The animal world is constantly pouring forth carbonic acid from its system; at every

breath, "a man exhaling about 140 gallons per day," [Davy] which until changed is poisonous to the animal world. Plants, as has already been stated, absorb carbonic acid, decompose it, retain the carbon, and exhale the oxygen again into the air. Thus the action of one is balanced by the action of the other, substances being constantly changing places and assuming new forms. What one does, the other undoes. Animals vitiate the air and plants cleanse it. But of what benefit is this knowledge to agriculture? It shows the necessity of fine, deep pulverization of the soil, that it may receive and retain the enriching gases, contained in the air. All nourishment is taken up by the plant in a liquid state, and therefore the more thoroughly the soil is pulverized, and the more intimately manure is mixed with it, the greater the benefit derived therefrom. It shows us too the necessity of preserving and converting all vegetable substances; for no farmer, however great a crop he may produce, creates anything, but only uses means to bring together in a new organization, matter that was created when the world was made.—S. TENNEY, in the *Farmer and Mechanic*.

For the New England Farmer.

TO MEASURE CORN IN THE CRIB.

MR. EDITOR:—There appeared in the *N. E. Farmer* of January 14, 1854, a rule to measure corn in the ear in a crib, to ascertain how much it will make when shelled. Suppose a crib to be 8 ft. long, 4 ft. wide and 4 ft. high, then according to the rule $8 \times 4 \times 4 = 128 \times 4 = 512$ bu. Now suppose we try another rule; take a crib of the same dimensions $8 \times 4 \times 4 = 128$ solid or cubic feet, then 128×1728 the number of inches in a foot = 221,184 ÷ 2150.4 the number of inches in a bushel, = 102.9 the number of bushels in the crib, cob and all. It is called very good corn up here in New Hampshire, that two bushels of ears will make one of corn, notwithstanding we raise some tall corn: then $102.9 \div 2 = 51.45$ bushels; difference 6.15 bushels. Is the first rule referred to so correct as to be relied on? If so, please state the why and wherefore. A SUBSCRIBER.

Nottingham, Jan. 16, 1854.

For the New England Farmer.

WHY DON'T THE BUTTER COME!

MR. EDITOR:—I wish to inquire of you, or through your paper, what is the reason that my cream will not make butter. I have one of Crowell's thermometer churns, and my wife and girl sometimes churn all day, and then I take my turn in the evening, and churn until nine or ten o'clock; we then lay it over for the next day, and churn until we get tired and out of patience, and then give it up. We have had three or four trials like this, and finally concluded it not best to try any more. I salt my cows once or twice a week, and am very regular about feeding them; the milk is kept in the cellar under the house, as I have no convenient place up stairs; it is a dry, warm cellar. We churn once a week. Now if you, or any of your subscribers, can tell me how to get the butter, you will much oblige me.

JOSEPH H. WELLES.

Columbus, Ohio, Jan. 30, 1854.

FIFTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, FEB. 14.

Subject—Manures, the preparation and application thereof, including improved fertilizers.

The meeting was called to order at 7½ o'clock by Mr. SIMON BROWN, of the *Farmer*, who invited His Honor Lieut. Governor PLUNKETT to take the chair for the evening.

Mr. PLUNKETT, on assuming the chair, briefly addressed the audience, remarking that he felt convinced that there were others present, who, both from observation and experience, were better qualified to discuss agricultural matters than himself, for his occupation in life had not been that of farming. While we look around on the manufacturing and commercial interests of the State, and remark how greatly they contribute to its prosperity, we cannot help observing that there is one pursuit which underlies, and perhaps eclipses them both in point of importance—that of agriculture. Much of the comfort and luxury of the people of the Commonwealth is derived from this pursuit, hard and barren though our soil may be. And although these different interests are thought sometimes to conflict, he conceived no reason why it need be so—each can be made to help the other. If there ever was a time when all the faculties, industry, skill and enterprise of the farmer should be exerted, the present is that time. A great market is opened for our surplus agricultural productions, and high prices rule for them all; he was glad to see that the farmers of this Commonwealth are ready to reap a portion of the wealth which is thus offered to them. In passing over the State, we see less broken windows and fewer ragged children than formerly. We see handsomely painted houses, and fences, and every indication of thrift in the agricultural portion of the community.

One interesting and cheering sign of the times, is the higher view which is taken of agricultural labors. The inhabitants of our cities, the merchants and professional men, have come to look upon labor on the soil as an honorable pursuit, and he trusted the time was not far distant when farming would take rank with the most honorable professions.

Mr. PLUNKETT called on Mr. PROCTOR, of Danvers, to open the discussion on the subject for the evening.

Mr. PROCTOR remarked that he had had but little practical experience in the subject of manures, yet he considered the preparation and application of them as at the foundation of all success in farming, particularly on the sterile soil of New England. On farms which have become partly exhausted, it is indispensably necessary that the land should be renewed by manure. The question is, how shall we obtain this manure? Those who are

the most successful in finding out and inventing manures are the most successful in raising crops. Much has been said, of late, of condensed manure, such as guano, phosphate of lime, &c., which have been used by some farmers, though with different results—sometimes proving beneficial, as often entirely lost. This is owing to a lack of accurate knowledge in regard to using them. Our farmers have not sufficient information to use them generally with success. That is what is needed. Yet they cannot be relied on to fertilize our farms. Common farmers cannot afford to buy them. The ordinary farmer should find on his own farm all the manure that he needs, for unless he can do this, he cannot farm successfully. Rich men may do it, but ordinary farmers cannot.

If farmers understood the constituents of the soil, they might accomplish much more in the way of fertilizing their land. If they knew what composed the soil, they would know what it needed to render it productive. On sandy lands, he had known clay to be applied with great success. A gentleman in Franklin county, who took a farm of forty acres, said to have been completely run out, yielding very small crops, began by applying about fifty loads of clay, in conjunction with plaster and manure. The clay was found to be just the thing for retaining the manure in the ground, whereas before the manure seemed to pass off, the clay grasped and held it. The crops were vastly improved, and the gentleman realized a net profit over all expenses, of \$30 to the acre, and received a premium from the agricultural society for his superior farming. Farmers can find on their farms all the manure that is needed to recruit them. On most farms there are spots of swampy land, the mud from which should be taken out and mixed with the barn-yard manure; and instead of having only 50 or 60 loads, the farmer may have 200 loads of good manure. Mr. PROCTOR mentioned a small farm on which, during the last eight years, 500 loads (of 35 bushels each) of manure had been made in this manner, and although the land was originally of very ordinary quality, its fertility had been greatly increased and excellent crops were obtained from it. He also related an instance where a neighbor of his, wishing to surpass his brother farmers in raising a crop of grass last year, obtained guano and applied it to his land, although he was obliged to do so at hap-hazard, knowing nothing about applying it properly. The consequence was, that when the time came to mow, there was nothing to mow! Another man, with an acre and a half of land, applied a compost of muck from the meadow, sowed his land with grass seed, and in thirteen months time cut from it 7,140 lbs. of good English hay, making a clear profit of about \$60 over all expenses.

Mr. BROWN, of the *New England Farmer*, said

he was more familiar with the physical operation of the preparation and application of manures, than speaking of them in public,—but being called upon, would make a few practical suggestions. He would first, however, advert to some of the theories which had prevailed in other countries and at different times. There was a time when distinguished men believed that manures were not necessary in order to raise fine crops. Jethro Tull, who wrote much in favor of this theory, succeeded in raising fine crops for several successive years on the same land without manure, but it was probably owing to the land possessing in abundance the peculiar properties which the crop required; but he lived long enough to perceive the fallacy of his favorite views. This theory has been revived of late, with some modifications which a better knowledge of the principles of chemistry could hardly fail to suggest, and consists in this—that if the soil is deeply and finely pulverized, it will be in the best condition to receive, just what the plant most requires, a full and free supply of nitrogen from the atmosphere.

Mr. Brown alluded to the great waste of fertilizing matters by the farmers of the commonwealth, and gave it as his belief that if the merchant were as careless in husbanding his resources, he would scarcely maintain himself for a single year. He thought farmers must rely upon their own lands for their fertilizing materials, and not upon foreign resources. Special manures, such as guano, the phosphates, poudrettes, lime, plaster, &c., are excellent as auxiliaries, and will often help out a specific plan or purpose both with convenience and profit. *But first, every means offered by the farm itself, should be improved in the highest possible degree.* Originally, most lands were fertile, the hills as well as the lower lands, but the action of the elements had disintegrated the rocks and the surface of the hills which had been washed into the valleys below, where common sense tells us we should go for the deposits there made.

The farmer should have a good barn, with a tight cellar under it, and his cattle kept tied up over night through the year; behind them should be a trench to catch the droppings, and if the trench is daily supplied with a covering of meadow muck to the depth of an inch, so much the better; from the trench the whole should pass into the cellar. Here, also, more muck should be added, covering the droppings an inch every morning. The importance of this system will be well illustrated by omitting this covering for a day or two, when an odor will be thrown off from the manure which will penetrate and infect the clothing or whatever comes in contact with it, but ceases on the droppings being again covered. This effluvia is the ammonia, which is exceedingly volatile and passes rapidly to the air, but is absorbed and retained by

the meadow mud, thus preserving the chief fertilizing property of the manure. The droppings should also be kept where the frost cannot affect them, and overhauled occasionally during the winter. If he intended to plant corn, more especially if on sward land, he would spread manure, no matter how coarse, if well saturated, in the fall, and plow it in. This plan had succeeded admirably, and he compared it to a pan of dough, in which the yeast had been placed at night, and in the morning it was light and spongy. With land thus prepared, he could drive the plow in up to the beam in the following spring; and from land thus treated, said he had raised at the rate of 1200 bushels of parsnips and carrots to the acre. If he plowed sward land in the spring, would postpone it until the day before he wished to plant the corn, in order that there might be as much grass turned under as possible, which would become warm, ferment, and afford a fine resource for sustaining the later growth of the crop. Some of our best farmers are also in the practice of spreading the manure on the surface and plowing it under, even in the spring, and with excellent results. He would recommend that a little manure should be added to the hill in order to give the germ a quick and early start. This is a point where guano, properly mingled with swamp muck, may be used with advantage.

Mr. Brown favored the use of muck, also, and of coarse manures plowed under in the fall, because they impart bulk, as well as nutrition, which he considered quite important, and enforced by some illustrations.

Mr. HOWARD, of the *Cultivator*, expressed his concurrence in the remarks of Mr. BROWN, especially in regard to swamp muck and bulky manures. One reason why bulky manures are valuable, is, because they render some soils more friable. Another reason is the carbonic acid they contain, a fact which is too generally overlooked, even by scientific men. Vegetables feed largely on carbonic acid; it forms 90-100 of all vegetables, and a large portion of animals. The plant absorbs this acid as well by its roots, as by its leaves, and he thought that applying muck manure to the roots was better than depending on the atmosphere. Referring to the theory of Mr. Tull, of non-manuring, Mr. HOWARD said he thought that individuals erred in supposing that the results he obtained on particular soils, could be made universal. We know that much land in this country has a great depth of soil, and is of apparent inexhaustible fertility, and on such a soil the system might work, but no general good results could be obtained from the system.

Mr. COPELAND, of Roxbury, thought sufficient prominence had not been given to artificial manures, particularly urates. If we analyze urine, we find that it contains ammonia, phosphates and

salts in greater amount, weight for weight, than solid manures. He had tried artificial manures extensively, and induced others to do so, with different results, according as applied. If put on the land previous to long continued rains, the benefit was very great; if applied after copious rains, scarcely any benefit resulted. The reason is, that plants cannot take up the matter necessary for their nourishment except in solution. One advantage of this sort of manure is, a greater amount of ammonia, and greater stimulative power. The speaker thought farmers had given way too much to chemists. They should study for themselves, and thus learn what they have to pay for without understanding, and which is merely temporary or of little benefit—as, for instance, a chemist may analyze the farmer's land, and furnish him with an artificial manure, for all which he must pay handsomely, but the chemist will not tell him how the manure is made, and he must buy more if he wishes to repeat the application. Besides, if the farmer understands these matters, he will enjoy the advantage of practical and not theoretical judgment; and will also be able to calculate the cost of such preparations as he may want for his soils. He will find this information in the works of the late Mr. Teschemacher, which are published at a cheap rate, and also in other works.

In New England many farmers cultivate too much land; they do not have time to become acquainted with the differences of soil which it often embraces, and therefore cannot find out what it needs. Some farms have no muck; but we must not look too much to bulk,—it is the elements which the plant needs. If you have a manure heap, put on to that heap a certain portion of sulphuric acid; it will unite with and retain all those gases which fly off, and which embody the qualities needed to promote vegetation. You will not have so many loads, but will have more in value. A mistake is often made by putting on these concentrated manures as thickly as bulky ones. The value of straw on land is not so great as the special manures which may be purchased with it. Straw is chiefly carbon and silica, with some salts; and the land does not need so much of the two former as the straw contains. If farmers would read, they would understand these chemical combinations.

Mr. HOLMES enforced the necessity of considering the barn-yard as the great resource of the farmer for fertilizing agents. He regarded it a very injudicious plan for farmers to buy special manures, and allow the most valuable part of their home-made to evaporate into the atmosphere. Vegetable and animal matters decompose into carbonic acid, water and ammonia, which must be retained. Ammonia is valuable, and whenever the manure heap becomes heated, it throws off the am-

monia, and it is lost. Nature has provided us with the substances necessary to absorb it. Carbon, in the shape of peat mud, and gypsum, or lime, another, which should be spread over the heap. The ammonia, as the manure in the country is now managed, is in a great measure lost. In the excrements of cattle are mineral substances which are required by plants. Put something over manure heaps which will retain its good qualities but not retard decomposition.

Mr. RUSSELL, of Pittsfield, said he made considerable compost manures, using muck, loam or anything which comes handy. He also secured the washings from the sink, and collected all the droppings of cattle he could find, but did not cover his manures, and did not think it made much difference. He raised excellent crops with it.

Mr. PROCTOR said he was glad to hear liquid manures advocated. Last year a farmer whom he knew stalled his cattle (10 cows and 6 horses) at night, and preserved all the liquor by conveying it into a tank, from which it was raised by a pump for distribution over his land. Adjoining his barn was a field of 10 acres of grass land, which did not bear but a ton and a half of grass per acre. Last year he applied the liquid to it, and cut three tons of hay per acre, or double its previous yield. Every farmer can do the same thing, or what is equally well, use muck to absorb the liquid. He knew of farmers who had made great quantities of manure in this way. Further remarks were also made by Messrs. SMITH of Hadley, COOK of Lenox, and RUSSELL of Pittsfield.

Mr. COPELAND stated that the most remarkable illustration of the value of liquid manure would be found in Belgium, which, from a sterile sand, had been converted into the garden of Europe, by the system pursued by the peasants. The land is cut up into small livings, and by means of the liquids collected from the household and perhaps from a single cow, surprising fertility has been imparted to the soil. Cows are often hired out at the rate of \$20 per year for their liquid alone; this fact could be established.

A HINT TO FARMERS.—Mr. Sanders, the American Consul at London, in a letter published in the *New York Herald*, says:

"Finally, our farmers should sow plenty of spring wheat, and plant any quantity of Indian corn. The Baltic and Black seas will certainly be closed for at least a twelve month. England and Western and Southern continental Europe will have to look to the United States alone for a supply of breadstuffs, hitherto obtained from those seas."

Our farmers will do well to act upon this suggestion. There will undoubtedly be a demand for all the surplus breadstuffs we can raise, perhaps for several years to come, and farming will be one of the safest and most profitable branches of industry.

*For the New England Farmer.***THE BIRDS OF NEW ENGLAND,****THEIR PAST AND PRESENT HISTORY....NO. 9.**

BY S. P. FOWLER.

"Among the delights of spring, how is it possible to forget the birds. The smaller birds—the little songsters of the woods, and those that haunt man's dwellings, and claim human friendship by building their nests under the sheltering eaves, or among the orchard trees—these require a touch more delicate, and a gentler heart than mine, to do them justice." If Nathaniel Hawthorne, one of our most gifted and popular writers, could thus express a distrust of his powers to do justice to our birds, how can we hope to succeed in the attempt? But, if by any remarks upon their habits, we should induce the agriculturist to afford them protection, our object will be accomplished. The first bird we shall notice is the Blue-bird, one of our earliest spring visitors. It very much resembles in its character and appearance, the Robin Red-breast of England. It has a mild and peaceful disposition, which, coupled with its early appearance in spring, and its domestic habits, render it a general favorite. It feeds upon insects in the early part of the season, and in autumn adds to its bill of fare, berries and wild fruits. It is supposed to inhabit nearly the whole continent of America. Doct. Richardson says, the cheerful and familiar Blue-bird is one of the earliest arrivals in spring, on the shores of Bear Lake River, arriving in company with the well known American Robin. Mr. Wilson says, such are the mild and pleasing manners of the Blue-bird, and so universally is he esteemed, that I have often regretted that no pastoral muse has yet arisen in this western, woody world, to do justice to his name, and endear him to us still more by the tenderness of verse, as has been done to his representative in Britain, the Robin Red-breast. A small acknowledgment of this kind I have to offer, which the reader, I hope, will excuse as a tribute to rural innocence."

"When winter's cold tempests and snows are no more,
Green meadows and brown furrowed fields reappearing,
The fishermen hauling their shad to the shore,
And cloud-cleaving Geese to the lakes are a-steering;
When first the lone butterfly flits on the wing,
When red glow the maples, so fresh and so pleasing,—
O then comes the Blue-bird, the herald of spring!
And hails with his warblings the charms of the season.

Then loud-piping frogs make the marshes to ring;
Then warm glows the sunshine, and fine is the weather;
The blue woodland flowers just beginning to spring,
The spicewood and sassafras budding together:
O then to your gardens, ye housewives, repair,
Your walks border up, sow and plant at your leisure;
The Blue-bird will chant from his box such an air,
That all your hard toils will seem truly a pleasure.

He flits through the orchard, he visits each tree,
The red-flowering peach, and the apple's sweet blossoms;
He snaps up destroyers wherever they be,
And seizes the catflits that lurk in their bosoms;
He drags the vile grub from the corn it devours,
The worms from the webs, where they riot and welter.
His song and his services freely are ours,
And all that he asks is—in summer a shelter.

The plowman is pleased when he gleams in his train,
Now searching the furrows, now mounting to cheer him;
The gardener delights in his sweet, simple strain,
And leans on his spade to survey and to hear him;
The slow, lingering school-boys forget they'll be chid,
While gazing intent as he warbles before them,

In mantle of sky-blue, and bosom so red,
That each little loiterer seems to adore him.

When all the gay scenes of the summer are o'er,
And autumn slow enters, so silent and sallow,
And millions of warblers, that charm'd us before,
Have fled in the train of the sun-seeking swallow,
The Blue-bird, forsaken, yet true to his home,
Still lingers, and looks for a milder to-morrow,
Till, forced by the horrors of winter to roam,
He sings his adieu in a lone note of sorrow."

The next bird we shall notice is the Rice-bird or Bobolink. This bird is well known, and possesses some peculiar characteristics, among which, we may notice the change of plumage in the male. Their beautiful nuptial dress is worn by them only during the love season, at the close of which, it gradually assimilates to that of the female, which is a brownish yellow, when by the first of August, they cannot be distinguished from their mates. The subject of change, in the parti-colored plumage of the male Bobolink, has long been a wonder to many persons. Mr. Catesby, one of our earliest ornithologists, was greatly perplexed upon this subject, and upon examining great numbers of these birds in autumn by dissection, declared all of them to be females! What probably increased his perplexity was the fact, observed by him, that of all the great numbers of the pie-bald birds emigrating north in the spring; not a female could be found amongst them, and on the other hand, when they returned to the south in autumn, not a male could be seen, they having, to all appearance, become females. The true cause of this mystery, the change of plumage in the male birds, was first suspected by Mr. William Bartram, as noticed by him in his travels in North America, published in London in 1792, page 295. Like many of our birds, the male Bobolinks are first seen unaccompanied by the females, and by their lively and vigorous notes attract our notice, but the more quiet females, in their brown dress, and keeping much of their time on the ground, are but little noticed. We know of no change of plumage so great as that of the Bobolink, to be found in any other of our birds. We may also notice a great change, which takes place in their notes in autumn. The jingling, pleasing melody, which so often greets us from so many grassy meadows and fields, during the breeding season of the Bobolink, is hushed and silent in August, and nothing is then to be heard, but a clink, no way to be distinguished from the note of the female. Mr. Nuttall, who has distinguished himself among ornithologists, in his endeavors to imitate the notes of our songsters, says that many of the tones of the Bobolink are very agreeable, but they are delivered with such rapidity, that the ear can scarcely separate them. The general effect, however, like all the simple efforts of nature, is good, and when several are enchanting forth in the same meadow, the concert is very cheerful, though monotonous, and somewhat quaint. Among the few phrases that can be distinguished, the liquid sound of *Bob-o-lee*, or *Bob-o'link*, *Bob-o'link'e*, is very distinct. To give an idea of the variable extent of song, and even an imitation, in some measure, of the chromatic period and air of this familiar and rather favorite resident, the boys of this part of New England make him spout among others, the following ludicrous dunning phrase, as he rises and hovers on the wing near his mate: "*Bob-o'link*, *Bob-o'link*, *Tom Denny*, *Tom Denny*. Come

pay me the two and sixpence you've owed me more than a year and a half ago!—"tahe 'tshe, 'tahe 'tah 'tshe," modestly diving down at the same instant into the grass, as if to avoid altercation. However puerile this odd phrase may appear, it is quite amusing to find how near it approaches to the time and expression of the notes, when pronounced in a hurried manner." These birds devour various kinds of insects and worms, during the spring and summer months, and in autumn they subsist principally on seeds and wild rice. The Bobolinks are said, by Mr. Wilson, to be troublesome in the grain fields at the south, and in the oat fields of New England. But they have never, to our knowledge, been a subject of complaint in the eastern part of Massachusetts, and are generally regarded with favor by cultivators, as they undoubtedly should be. The last bird we shall notice in this communication is the Cat-bird, the *Surdus felivox*. This bird is not found in so great abundance in the eastern part of Massachusetts, as in the middle States. With us it is occasionally seen in swamps and thickets, feeding upon insects and wild fruits. It is well known to every idle schoolboy in the Commonwealth, that is sufficiently large to rob its nest, which he seldom fails to do, upon every opportunity; the poor unfortunate songster, having a bad name, is with boys a proscribed bird. Catesby, writing many years since, speaking of the Cat-bird, says, "They have but one note, which resembles the mewing of a cat." This, observes Mr. Bartram, is a mistake, very injurious to the fame of that bird, he, in reality, being one of our most eminent songsters, little inferior to the Mocking Bird; and in some instances perhaps exceeds it, particularly as a buffoon or mimic. They are a kind of domestic bird, during their spring and summer residence in Pennsylvania, building their nests in gardens, and sheltering themselves in groves near the houses. They cause great trouble and vexation to hens, that have broods of chickens, by imitating their distressing cries, in which they seem to enjoy much delight, and cause some amusement to persons who are diverted at such incidents. They are the first bird heard singing in the morning, even before break of day." With those persons who are above prejudices, the Cat-bird will be found, upon better acquaintance, to be an interesting songster, when in good humor. And even when displeased and petulant, its strange note, not unlike the mewing of a cat, cannot fail to be interesting from its quaintness. They are domestic and familiar in their habits, and can be induced to build their nests and rear their young in our gardens, provided a suitable shelter is made of shrubs and vines, where they can hide and conceal themselves. When thus furnished with a retreat, they have been known sometimes to build in our city gardens, where they could not fail to add to its interest by their musical powers. We are not certain, however, that the Cat-bird would not be tempted to partake of the fruit in the garden, but the mischief, which a pair or two of these birds would produce, could not be very great.

Danversport, Dec. 12, 1853.

S. P. F.

CAREFUL USE OF HORSES.—An acquaintance lost his horse a few days ago, in a manner that would suggest an habitual caution in driving. The horse, a valuable one, well kept, in good spirits, and in

perfect health, was taken from the stable and driven. He had ascended a long and hard hill within the first mile of driving, and as soon as the summit was reached, the driver, as is the habit of many, touched him with the whip; he sprang, stopped, staggered and fell, and by the time the driver could alight from the carriage, he was dead. An examination showed that a large blood vessel near the heart had been ruptured.—*Farmer and Planter.*

For the New England Farmer.

FEED FOR STOCK.

MR. EDITOR:—In your January number you speak of the disadvantages of dry food wholly, for stock, a fact of which I have been quite sensible for many years. Stock fed wholly on dry fodder, suffer from costiveness, and if the feed be poor, usually leave their leanto in the spring hide-bound and lousy, from which they hardly recover before midsummer; then the dry season comes on, consequently the milch kine report but indifferently at the pail, and the farmer complains that there is no profit in the dairy business, or in raising stock; nor is it uncommon to lose a horned quadruped when so wintered. To avoid some of these disadvantages, I several years since commenced the practice of feeding roots once or twice a week to my stock. For two or three years past, I have produced two or three hundred bushels of flat and Sweedish turnips, each year, and fed my milch cows with them daily. At first I cut them with a shovel, but did not like it, the labor being too much and badly done. I then purchased a vegetable cutter, of Ruggles, Nourse & Mason's manufacture, with eighteen knives, which is described in their catalogue.

It cuts into fine pieces and does perfect work; the only objection to it being, that it does not feed well without tending. If the manufacturers will construct the hopper so that roots will not clog, they will make it much more valuable. It will cut a bushel in a minute.

It would be superfluous to speak of the disadvantages of feeding corn stover uncut, did nineteenth-twentieths of the farmers do it. We well understand that cattle, unless kept on short allowance, will eat but little more than the leaves and husks, and very many of us know how pleasant it is, when forking the manure, to be slapped in the face with a good sized corn "bumpin'."

Last winter I for the first time cut my corn fodder and poorest hay for my cows. This, I considered quite an advantage, but there would be a portion each day of the more unsavory part they would refuse. I have thought favorably of the practice of steaming food for cattle, but could not seem to see how I could well do it in the barn, or contiguous to it, without undue exposure to fire. As an approximation to it in effect, I had a box made water tight, which holds about five barrels. After the last feeding at night, I put one peck of shorts on the bottom; then fill it about half full with cut corn stover, hay or straw, or a mixture of all—then put one peck of cabbage (corn ground in the ear) and half a bushel turnips which have been passed through the vegetable cutter—then fill the box topping out with another peck of shorts and another half bushel turnips; I then boil ten pails of water in my chaldron and pour upon it and shut the cover. This is the feed for five cows the fol-

lowing day. They are very fond of it, thrive well on it and leave a clean manger. With a single exception they are good beef. They give as much milk as they would on good June feed. I think I shall save about one-fourth my usual winter's feed. I am assured it will be objected that there is too much work in this. I think, Mr. Editor, I can do the extra work in this arrangement, while my neighbor on the one hand is smoking his half dozen short pipes, or the one on the other is hearing and retailing the neighborhood news at the public house.

Yours &c.,
Southboro', Feb., 1854.

DAVID ALDEN.

REMARKS.—We are much obliged to our correspondent for the above account of his practice in feeding stock. We see no sort of objection to it, but on the contrary believe that, after paying interest and wear and tear of fixture, the cost of fuel for boiling the water, and the extra labor, you will save more than sufficient fodder to pay expenses, to say nothing of the greater quantity of milk you will be likely to get, and the better condition in which you will keep the stock.

HOW TO SUBDUCE A VICIOUS HORSE.

On looking over some old papers the other day, we came across the following, which, if true, is worth knowing. It seems that a fruitless effort was being made in a blacksmith shop to shoe a vicious horse, which resisted all efforts, kicking aside every thing but an anvil, and came near killing himself against that, when by mere accident, an officer returned from Mexico was passing, and being made acquainted with the difficulty, applied a complete remedy by the following simple process:

He took a cord about the size of a bed-cord, put it in the mouth of the horse like a bit and tied it tightly on the top of the animal's head, passing his left ear under the string, not painfully tight, but tight enough to keep the ear down and the cord in its place. This done, he patted the horse gently on the side of the head, and commanded him to follow, and instantly the horse obeyed, perfectly subdued, and as gentle and obedient as a well-trained dog; suffering his feet to be lifted with entire impunity, and acting in all respects like an old stager. The simple string, thus tied, had made him at once as docile and obedient as any one could desire. The gentleman who thus furnished this exceedingly simple means of subduing a very dangerous propensity, intimated that it is practised in Mexico and South America in the management of wild horses. Be this as it may, he deserves the thanks of all owners of such horses, and especially the thanks of those whose business it may be to shoe or groom the animals.—*The Plough, the Loom, and Anvil.*

CORRECTION.—On referring to the Transactions of the Hampshire County Agricultural Society, we find the statements of Messrs. MOSES STREBINS, AUSTIN SMITH & SONS, and SAMUEL POWERS, in relation to the management of their farms. In our weekly paper of the 21st January, we gave a portion of these statements, under the caption, "Franklin Co. Premiums." It should have been, HAMPSHIRE COUNTY PREMIUMS.

MARYLAND OYSTER TRADE.

According to the *Baltimore American*, the product of the oyster trade of the city is equal to or greater than the product of all the wheat and corn raised in the State of Maryland. The whole shores of the Chesapeake Bay and its tributaries are adapted to the growth of the oyster, and as but one year is required for their full growth, an immense profit accrues to those engaged in the business—a profit which is estimated at some three hundred to six hundred per cent. There are 250 vessels engaged in the business, which average about 900 bushels to the cargo, and require nine or ten days for the trip. These vessels, making in the aggregate 6,000 trips during the eight months in the year in which they are engaged, give a total of 4,800,000 bushels per year sold in the Baltimore market. The oysters bring an average price of 50 cents per bushel, which gives a grand total of \$2,400,000 per year paid for oysters by the dealers in the city. Some of the houses send by the Baltimore and Ohio and Baltimore and Susquehanna railroad, to say nothing of the other modes of transportation, from eight to twelve tons of "canned" oysters per day. The shells are carried for manure to all parts of Virginia and North Carolina. In the "shocking" of oysters, the shells will increase about one-fourth, which would give a total of about 6,000,000 bushels of shells, which sell for two cents per bushel, making a return of \$100,000 per year for the shells alone.

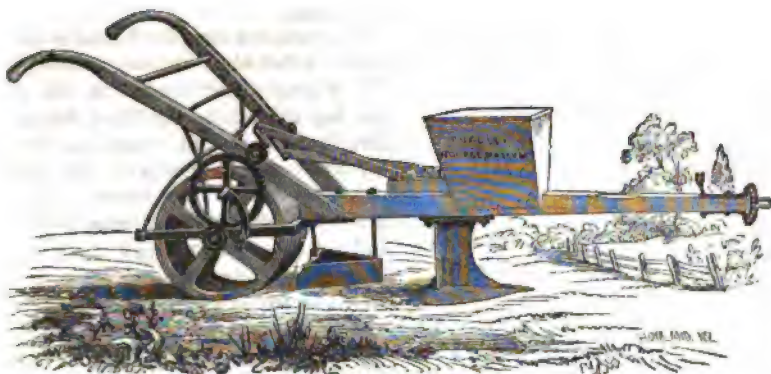
BUTTER-MAKING.

Miss Emily says in the *Ohio Cultivator*, "I have for several years had the entire care of the milk department in my father's family. I therefore read with great interest whatever relates to making butter and cheese, and I found much that was different from what I had been in the habit of practising. One case of this kind, was directions for making butter in winter, according to the Russian method, by which, it was said, butter could be made with as little churning in winter as in summer. So I set about trying the experiment, and the result exceeded my expectations. Before I go to milk I put a kettle, say one-third full of water, and large enough to set the milk pail in it, on the stove, where it will get boiling hot by the time I come in with the milk.

Then strain the milk into another vessel, and wash the pail (which should be tin,) then pour the milk back into the pail, and set it into the kettle of boiling water, until the milk becomes scalding hot, taking care not to let it boil, then pour it into crocks or pans, and set it in the cellar for the cream to rise in the usual way. Cream procured in this way will seldom require twenty minutes to churn, while by the common practice, the poor dairy-maid may often churn for hours, and then perhaps have to throw all away, as I did on several occasions before I happened to gain this valuable information. So much, Mr. Editor, for one instance of the advantage that a young lady may derive from agricultural reading."

The process given above will answer in summer as well as in winter.

The Society of Industry, in France, has offered a prize of 1,000 francs for the best treatise on the potato.



BATCHELDER'S CORN PLANTER.

By permission of Messrs. Ruggles, Nourse, Mason & Co., we are allowed to use the engraving of this Planter from their copyright catalogue, and the following explanation of its capacity for work. It says: "This is one of the best machines yet invented for planting corn. The seed is put into the hopper above the beam, and as the horse moves along, the share below opens the furrow; the corn is then dropped by arms moving horizontally. These arms have holes in them of a proper size to receive any required number of grains, and as they pass in and out of the hopper, the holes are sure to be filled with the seed, which as surely drops into a tube conducting it to the bottom of the drill made by the share, which is so formed that it passes under the surface at any required depth, and deposits the grain without turning over the earth. A triangular iron follows to remove all lumps and stones, and a roller to compress the earth over the seed. The dropping of the seed is always visible to the operator, and thus ensures his work being perfectly well done. The arms are made to drop the corn nearer or farther apart, by different sized cog-wheels fastened on the crank, moving the arms quicker or slower as required; five changes can be made. Those usually made drop from two feet to four feet apart, as wished. The machine requires a horse or mule to draw it, and with a person to tend it and drive, will plant 12 to 14 acres per day, according to the width of the rows apart.

WOOL.—The close of the year leaves a light stock of domestic pulled and fleece wool on the market, but with what still remains in the country it is supposed to be sufficient to supply the wants of manufacturers till the new is ready for sale. The apprehended scarcity towards the close of last season induced manufacturers to go into

the country immediately after shearing, when they bought freely. A considerable portion of the clip has been sold at high rates before shearing, which with the exorbitant prices asked for the wool left in the hands of farmers, prevented dealers getting their usual supply. The wool still remaining in the country is held several cents above the prices at which it is selling in the market, and it is supposed manufacturers will be compelled to turn their attention to the country for their supply before the next clip will be ready for market.—*Boston Courier.*

THE CONCORD FARMER'S CLUB.

HOW TO RAISE CORN PROFITABLY.

The following remarks of Dr. REYNOLDS, were accidentally omitted in our report of this club last week:

Dr. REYNOLDS said that the best field of corn he had ever seen, was raised in the following way. The soil was good. The sward was thick and firm. 16 loads of good manure from the barnyard were spread on the grass. The furrow was turned flat and smooth. Then it was harrowed and furrowed, without disturbing the furrow slice; 8 loads of manure were put in the furrow. It was planted in drills, one kernel every ten inches. The rows were the usual distances from each other. This field yielded a hundred and five bushels. The corn was the 12 rowed. He is disposed to think this one of the best methods of planting corn upon land that has been mowed several years. The roots strike through the sod, and in a dry season they find moisture. The ammonia generated from the decomposition of the manure is retained by the sod for the use of the roots.

The Dr. said the enemy which the corn has to fear most in New England, is the drought. There are three means by which we may guard against this to some extent. The first is the method of cultivation indicated above, for grass land. The second, is on stubble land, deep plowing. If the soil is loosened deeply, the roots will penetrate it till they find moisture. If there is no other ben-

effit from deep plowing, this is a sufficient reason for it. Third. Frequent stirring of the surface soil—whatever of potash or soda or lime or ammonia there may be in the soil, is thus exposed to the air. These salts have a strong affinity for water, and they absorb the dew in large quantities and it is carried by capillary attraction down into the soil, and the rootlets soon manifest the consciousness of its presence, by the improved aspect of the plant. These three means, to which may be added early planting, will generally secure our corn crop from serious injury from drought.

SIXTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, FEB. 21.

SUBJECT—*Vegetable Products, such as Carrots, Beets and Turnips,—their value as feed for Stock compared with English Hay and Corn.*

Mr. PROCTOR, of Danvers, called the meeting to order, and on motion of Mr. HOWARD, of Boston, was appointed chairman for the evening.

Mr. PROCTOR, after a few appropriate preliminary remarks, proceeded to comment on the subject for discussion. If the question were asked, he said, "what is the value of a ton of carrots for the feed of stock, compared with that of a ton of hay?" it might be answered, that if anything can be learned from the price carrots usually bring in the market, it would be about half the value. That is, when hay commands \$16 a ton, carrots bring \$8, and so proportionately. But if it is asked what is the effect of feeding carrots to milch cows, one person will say that they greatly increase the quantity and improve the quality of the milk, while another will declare that they do neither, but improve the general condition of the animal. Well defined experiments of this kind of feeding are much needed. Messrs. LINCOLN and DODGE, of Worcester, in the pursuit of such experiments, have found a favorable estimate of the value of carrots. Mr. PORTER, of Bradford, has come to a different conclusion. Mr. COLMAN thought highly of their value, and strongly recommended their cultivation. He cites many examples to show their value—particularly as feed for horses. More than double the quantity of nutritive matter can be obtained from an acre of carrots, than almost any other crops;—it therefore is an object to grow them. Experience has shown them to be as certain, as almost any other crop.

Mr. SPRAGUE, of Duxbury, said that some of the best agriculturists in Plymouth County say they cannot raise carrots, turnips, &c., with benefit; they think turnips do not fatten cattle. Reference is often made to the success which attends cultivation of vegetables in England, but he thought it was no criterion for the American farmer. The English climate, being moist, is peculiarly fitted for raising turnips, while ours is unfavorable on account of its dryness and heat. The farmers of

Great Britain rely mainly on root crops in rearing stock for the shambles. Their grazing, too, is superior to ours, for the same reason, of difference in climate.

Mr. SPRAGUE considered turnips the best vegetable for fattening. He once remarked to the late Mr. WEBSTER, that farmers in his vicinity said salt hay and turnips would not fatten cattle, and Mr. WEBSTER replied, "what can I do to fatten my cattle without turnips?" He placed a high estimate on them. Mr. SPRAGUE related some experience of his own in fattening stock on salt hay and turnips. He has a pair of steers, which were in common "running order," as it is termed, which he fed on salt hay, with one bushel of turnips per day, for four months. They were weighed after three or four weeks, and he was surprised to find that they had lost weight; but he kept up his feed of salt hay and turnips until the last week of the four months, when they were fed on English hay and meal—at the expiration of this period they were sold to the butcher. Some of their meat was brought to him, and proved of excellent quality—as fat as would be desired. Mr. S. said he had raised 407 bushels of beets on a quarter of an acre of land, and 300 bushels of carrots on the same extent of ground; but these were very large crops. Roots, fed out in the winter, operate something like green food, but with better effect.

Mr. M. M. FISKE, of Framingham, inquired of Mr. SPRAGUE what the condition of his land was after producing those large crops of turnips.

Mr. SPRAGUE said he could not answer the question, but did not consider the land any worse off than after any other crop. He did not think root crops more exhausting than others. Last year he saw fifty bushels of corn per acre raised on Mr. WEBSTER's land where turnips had been raised the year before. Turnips are 85 per cent. water, with a broad spreading leaf, and he did not think such a plant could draw very hard upon the soil.

Mr. FISKE said that he had once been quite enthusiastic in regard to root crops, but after repeated experiments, had come to the conclusion that if he wished to raise any other crops, he must give up raising turnips. He thought they impoverished the soil. He had tried feeding turnips to a couple of cows—a peck a day to each. One of them fatted rapidly, while the other grew lean, but both gave an increased quantity of milk. He did not know how to account for the difference in flesh of the two, but thought it must be that turnips did not always agree with animals.

Mr. TOWER, President of the Berkshire County Agricultural Society, said he had had some experience, and had taken a great deal of pains to inform himself in regard to this subject, within the last ten years. We cannot expect a good crop of any kind unless the land is rich; nor of carrots unless the land is plowed deep or spaded deep and

is loose. Alluding to the idea expressed by Mr. FISK, that turnips impoverished the land, he remarked that he believed it was not best to put the same crop on the land every year, as there are certain qualities which that crop requires in the soil which may become exhausted by this continual draft upon them. The best crops are seen usually on sward land, well manured. The best method for obtaining a good crop of ruta бага is to sow immediately after getting in the other crops—no matter if in the middle of May. If the crop fails it may be sown again, and the farmer may be sure of getting a good crop. A gentleman of his acquaintance last year sowed his seed rather late, and the fly or something destroyed it, and he lost his crop. Experiments in root culture often fail from not selecting good land.

In regard to feeding carrots to cattle, Mr. TOWER said his experience led him to consider them very good, particularly for cows in winter, when they are confined to dry food. For the last 15 years, he had fed his cows either with carrots or ruta-baga turnips, and he thought the turnips produced the most milk. Well cleaned ruta bagas will make as much milk, pound for pound, as potatoes. He said he had never seen a good milker, when producing milk in abundance, but what would lose flesh, though she might be in good heart. When cows give little milk, they generally increase in flesh. He had tried feeding his cows for ten weeks on carrots, three pecks per day, fed twice a day, and then two weeks with ruta-bagas, but could not perceive any difference in the quantity of milk, while the animals relished both equally well. In his opinion they did not eat more than half the usual amount of fodder, when supplied with roots. He considered turnips a very profitable crop to raise, if the ground is adapted to their cultivation. For fattening cattle, a gentleman who had tried them, told him that he had satisfied himself that rutabagas would make beef as fast as anything else. Another person whom he knew, also preferred them for fattening sheep.

Mr. OLIVER M. WHIPPLE, of Lowell, made some remarks on farming in general, and advocated deep plowing with much confidence. He believed that the effects of dry weather could easily be obviated by plowing deep. He had plowed 12 inches deep for the last dozen years, and had always as good crops of grass and corn as any other man. One advantage of deep plowing is that it protects the manure, which is otherwise exposed to the sun and evaporated, while the turf is also deteriorated. Take the grass land and turn it 12 inches, and the turf becomes part of the manure. He had a field which was plowed 12 inches and manured heavily. The first year corn was grown up it, the next rye, the third year as much grass as could be made on the ground,

and the nine following years it was mowed. Last year he raised 44 bushels of corn to the acre from it without manure, plowing 12 inches, the corn being planted on the turf which was turned well under the soil, the corn being hoed but once. The soil was light and sandy, and although so hot during the summer as to send the heat through the shoes, the corn did not yield to heat. He had also raised an extraordinary crop of buckwheat without manure, and believed good crops could be raised on any fair land without manure by plowing deep. He obtained a grand crop of beans from land which had not been manured for twenty years.

Mr. COPELAND, of Roxbury, thought a good deal was to be gained by attending to what was done abroad. What makes the root crop valuable to England, it has been said, is the climate. Still they raise other crops there equally well, as Indian corn, &c., not needing moisture; and if we can raise their other crops, in this country, we can raise the root crops. He would venture to say that a very large portion of the most profitable kinds of farming is entirely unknown to the farmers of this State. Farming is of three kinds—market, milk, and stock farming. Market farmers grow the crops which pay the best, and just as long as they can get one dollar per bushel for ruta bagas they will not grow corn by the acre. Milk farming embraces butter and cheese, and any crop which tends to increase the quantity and quality of these it is very desirable to grow; the root crop he believed produced this result.

Mr. COPELAND enforced the utility of farmers keeping an accurate account of what each crop he raised costs him, and what he got for it, for by comparing the results of the different crops he could readily decide which was the most profitable. In this connection, he presented some interesting calculations, illustrating this fact. He had ascertained on inquiry that where a man fed out to his cow a peck of turnips daily, the yield was one quarter more per day for six months, while she was fed one quart of meal less than previously. Assuming that the cow gave six quarts per day previously, the comparative value of turnips and corn may be stated as follows;—

6 mos. 180 days, 6 qts. milk per day, 1080 qts., at 5 cts. per qt.	\$54.00
6 mos. 180 days, 1 qt. milk per day, 180 qts., at 5 cts. per qt.	\$9.00
6 mos. 180 days, 1 qt. of meal less per day, 180 qts., at 3 cts. per qt.	\$5.40
	\$14.40
This is 1 qt. in 6, 1 in 4 gives additional.	\$4.40
	\$18.80

From the above increase in the value of the milk of the cow, it appears that the turnips, (180 pecks or 45 bushels,) sold for 32 cents per bushel.

500 bushels turnips at 32 cents per bu.	\$160.00
500 bushels turnips cost 12 cents per bu.	\$60.00
Profit.	\$100.00

50 bushels of corn worth \$100 per bu.....	\$50.00
50 bushels of corn costs 50 cents per bu.....	25.00
Nett profit.....	\$25.00

The above figures are based on a scale of 50 bushels of corn, and 500 bushels turnips, each to the acre.

The following is a comparative statement of the value of oats and carrots, for feed:—

500 bushels oats at 50 cts. per bu.....	\$250.00
500 bushels carrots at 16 cts. per bu.....	80.00
Profit in favor of carrots.....	\$170.00

It costs no more to raise 700 bushels per acre of turnips or carrots than 500, while the profits will be greatly increased.

For fattening stock he considered 8 bushels turnips equal to 1 bushel of corn, the former being worth 96 cents and the latter \$1.03 or \$1.05, while the turnips, being softer and moister, will give the meat a better flavor, as is the case with English mutton, and instead of being "a streak of fat and a streak of lean," as we call it, will be mingled throughout. The cultivation of turnips may be greatly cheapened, and made less laborious by using a seed sower.

Mr. HOWARD, of the *Cultivator*, said he could not place too much reliance on scattered cases of injury to the soil by raising turnips; no general rule, he conceived, could be established to this effect. The English raise them with great success, and it is well known, regard them as the sheet anchor of their husbandry. With the increase of the root crop in England has increased the amount of breadstuffs and the number of animals raised, a state of things which could not follow if root crops exhausted the soil. Mr. HOWARD related some interesting cases going to show the profit of raising turnips. He thought the matter needed thorough investigation.

Further remarks were also made by Messrs. FISKE, RUSSELL, of Pittsfield, SPRAGUE, and the Chairman, and at 25 minutes past 9 the subject for next Tuesday evening was announced as follows:—

Dairy products.—what class of animals is best fitted for the making of butter and cheese, and what is the best mode of feeding for these purposes?

HOW THE EARTH AND JUPITER WHIRL.—While the orbital velocity of Jupiter is 700,000 miles per day, 30,000 per hour, 500 per minute, and 8½ per second! a speed sixty times greater than that of a cannon ball—the orbital velocity of our little planet, the earth is, 1,653,267 miles per day, 69,890 per hour, 1,148 per minute, and 19.1 per second. In short, the orbital velocity of the smaller and more centripetal planets is far greater than that of the larger and more centrifugal, although their rotary velocities are the reverse, the enormous circumference of Jupiter completing its revolution pretty nearly three times during the twenty-four hours' rotation of our little sphere; so that Jupiter's day and night are only between four and five hours each in length.

THE LABORER AND THE WARRIOR.

BY HENRY WASHINGTON.

The camp has had its day of song;
The sword, the bayonet, the plume,
Have crowded out of rhyme too long
The plow the anvil and the loom!
O, not upon our tented fields
Are freedom's heroes bred alone;
The training of the workshop yields
More heroes true than war has known.

Who drives the bolt, who shapes the steel,
May with a heart as valiant smite
As he who sees a foeman reel
In blood before his blow of might;
The skill that conquers space and time,
That graces life, that lightens toil,
May spring from courage more sublime
Than that which makes a realm its spoil.

Let labor then look up and see
His craft no path of honor lacks;
The soldier's title yet shall be
Less honored than the woodman's axe;
Let art his own appointment prize,
Nor deem that gold or outward light
Can compensate the worth that lies
In tastes that breed their own delight.

And may the time draw nearer still,
When man this sacred truth shall heed,
That from the thought and from the will
Must all that raises man proceed;
Though pride may hold our calling low,
For us shall duty make it good;
And we from truth to truth shall go,
Till life and death are understood.

MR. KING'S ADDRESS AT NORTHAMPTON.

We listened to this address with much pleasure at the time it was delivered, and have run over it again in the fair form in which it is now presented, with no abatement of interest. It abounds with excellent thoughts very felicitously expressed. It was delivered before the Hampshire, Franklin and Hampden Agricultural Society, at Northampton, on the 12th Oct., 1853. It touches upon most of the prominent points of farm husbandry, one or two of which we give below, on the errors of withholding manure, top-dressing lands, and attempting to cultivate too much:—

"Jethro Tull to the contrary notwithstanding, we do not believe that maximum crops can be produced by the simple disintegration of the soil, with planting. We advise manure, applied with a true *liberal economy*: and not spread upon the field, hours before it is to be plowed in; exposed to the thievishness of the sun and wind.

"It may be unpopular doctrine we preach, but we are not in favor of top-dressing lands with barn-yard manure; for the reasons,—evident and potent to us—that fully one-half of the manurial value of such an application escapes into the atmosphere; and that the chief benefit derived from its application could be attained by a less expensive *mulch*. Mr. Teschmaker, of Medford, Mass.,—one of the most scientific and most successful cultivators in America, and one of the most careful of men in expressing an opinion—estimated the loss of fertilizing value by top-dressing, at nine-tenths of the sum applied. A *mulch*—the shade

ing and protection of land by a covering of straw or leaves, or the like—is undoubtedly, of itself, an excellent application; but to mulch with manure, at a loss by escape of fertilizing gases of even one-half of its value, is extravagance. For a top-dressing, use, rather, guano, well composted; bone dust, *ground*, not crushed; the improved superphosphate of lime, or like applications.

"A mistake common to nine out of ten of farmers is to plant from one-third to one-half more land, than they can well handle and properly manure. It is a fact, proved by the dearly purchased experience of thousands, that one acre, thoroughly tilled and liberally manured, will *net* more, than three acres shallowly plowed, and sparingly dunged; just as one hale, hearty man will do more work, than a trio of guant, half-starved spectres, and eat less. Indeed, there is no cormorant so greedy,—no daughter of the horse-leech so insatiable, as land that has been allowed to become hungry; and small doses of manure, like the glutton's ante-prandial 'snack,' seem to serve only as a whet to the appetite."

For the New England Farmer.

FINE SAMPLES OF BUTTER.

We have been favored with the perusal of the following correspondence (written not for publication)—and are permitted to place it in our columns. The topic is one of interest, and we hope others will be induced to make experiments and communicate the results. We were not aware of the varied influences of the season of the year, upon the quality of milk for the making of butter, that these experiments in October and January seem to indicate. So far as our observation has extended, the *finest quality* butter we have ever seen, was made *on grass feed alone*. Without doubt, other kinds of feed will, under favorable circumstances, increase the *quantity*. Much depends upon the *dairy management* and the *kind of churn* used. We have seen it stated that some kind of churns produce *ten per cent.* more butter than others, from the same cream.

DEAR SIR:—I send you a small box of butter, such as we usually make at Oak Hill, for your acceptance. The milk from which the butter was made, was taken indiscriminately from seven cows. I have recently made two experiments;—from one churning of 24 quarts, I obtained five pounds twelve ounces (5 lbs. 12 oz.) from the other five pounds eight ounces (5 lbs. 8 oz.) The last churning was made during those very cold days, the last of January;—otherwise, I think the result would have been as large as the first experiment, if not larger. Wishing you may find the butter palatable,

Yours, very truly,

RICHARD S. ROGERS.

Danvers, (Oak Hill,) Feb. 10, 1854.

Danvers, Feb. 13, 1854.

MY DEAR SIR:—I thank you for your favor of the 10th inst., and particularly for the information, resulting from your well conducted experiments in the making of butter. By taking the milk indiscriminately from the product of your entire herd of cows, without any special preparatory feedings, you have as fair an illustration of what

can be done, at this season of the year, as is possible to be obtained. The best butter products that have come to my knowledge, are those of the *Oaks cow*, and of Mr. Motley's *Jersey cow*, *Flora*—each of which yielded milk, *five quarts* of which (beer measure) produced a pound of butter. It would seem from your repeated experiments, under circumstances not the most favorable, that the average quantity of butter obtained from twenty-four quarts of milk, was five pounds ten ounces;—or one pound of butter to four and one quarter quarts of milk;—a remarkable product in my opinion. Knowing the care you have given to the selection of our stock, and the superior arrangements in all the departments of your farm, I was prepared to expect a good product—but yours goes beyond my expectations—it comes, almost up to the October products of the Devon stock, in an adjoining county.

I should like to be particularly advised of the *measure used*, whether (wine or beer measure) of the feed given the cows at the time;—of the time the milk was set before the cream was taken from it—of the temperature of the room and the kind of pans in which it was set; and of the kind of churns used to bring the butter—each of which consideration is important to be taken into view, for an intelligent understanding of the subject.

I have no special interest in this matter, but simply an anxious solicitude to learn the truth; and an entire willingness to follow, wherever it may lead the way.

The quality of the butter was very fine, for the season of the year, and the form in which it was done up, a model of neatness and convenience.

Very respectfully and truly

Your obedient servant,

J. W. PROCTOR.

HON. R. S. ROGERS.

For the New England Farmer.

REAPING MACHINES.

DEAR SIR:—As a manufacturer, I desire to enter my protest against any more petty trials of reapers. They cost a great deal and amount to nothing. The decision at one trial is reversed the next week at another, perhaps with the same machines, and often the competitors can show their defeat was owing to some extraneous circumstances, as not having a suitable team, bad driving, or unfortunate management in some way.

A reaper trial is not like a horse-race, where the sole object is to beat, regardless of everything except the coming out ahead; it is, or ought to be, to ascertain surely which is the best machine, and not so much to benefit the owner, as the farmers, who wish to know what kind to buy.

How absurd is it for any set of men—I care not how great their experience and judgment—to take from three to a dozen reapers, perhaps all of acknowledged merit, and by the cutting of two acres each, as was done at the Wooster, Ohio trial, where mine was defeated; or even by cutting five or six acres, as at the Richmond, Ind., trial, where mine was victor, decide positively and absolutely that one reaper is better than all others.

Such a trial might show whether a reaper would work or not; but to judge between rival reapers, of which there are over twenty of established reputation, each having its points of excellence, a

long and thorough trial must be requisite, to see how they work in different kinds of grain, and under varied circumstances, and how they wear. A trial, to be decisive should go through an entire harvest. One, too, that was thorough and reliable, would be equally available in one state as another. They are also expensive to all concerned. I would therefore propose a general trial on something like the following plan:

Let several State Agricultural Societies unite, each appropriating \$200 to \$500, and appointing one or two committee-men, in whose experience, judgment and fairness, entire confidence could be placed. Let the committee make their arrangements early as possible, adopt their rules, and appoint time and place of first meeting. They might begin South and proceed North continue the trial for weeks if necessary, leaving out one machine after another as its inferiority became manifest.

The committee should have all their expenses paid, and perhaps compensation besides; and the cost of removing reapers from place to place might also be borne by the committee, in order to enable every builder to come into the trial; and for this reason I would not require any entrance fee, though some of the larger builders would doubtless be willing to contribute to the general fund. If five or more societies can be got to unite in such a trial, I will contribute \$200 to \$500, or as much as any other builder.

The surplus funds should be divided to the best machines, say half to the first, one-third to the second, and one-sixth to the third, to be paid in plate or money, as might be desired by the winner.

To save time and expedite arrangements, I would suggest to parties interested to correspond with Col. B. P. JOHNSON, *Secretary N. Y. State Agricultural Society, Albany, N. Y.* I have not communicated with him, but am quite sure his interest in agricultural matters will cause him to bear the labors with cheerfulness.

Yours respectfully, J. S. WRIGHT.
Chicago, Feb. 7, 1854.

UNDERDRAINING.

In our rambles about the country, we have noticed thousands of acres of wet, undrained lands; and many of them were annually mown over for the scanty crop of wild, sour grasses, brakes, polypods, &c., that they yield, which, when gathered into the barn as fodder, scarcely repay the expense of getting.

These wet soils, generally, may, at a moderate expenditure of labor, be made the most valuable and productive portion of many of our farms. If, in their natural wet state, they are plowed and planted with potatoes, or sown with oats, (as is sometimes the case,) the product is usually poor. Sown with English grass seeds, they may yield a tolerable crop, for two or three years; but the wild grasses and brakes will soon take their place. It is practically impossible to grow, successfully, what we term good English crops, upon a soil thus saturated with water, however rich it may be in all the requisite ingredients of plants; and we know that many of these water-logged soils, when judiciously drained, are of the best quality. But they have long rested under the stigma of being poor, heavy, cold lands. Now it should be known, that there is no such thing, in the common ac-

ception of words, as heavy, cold lands; only, as they are rendered so by excess of water, which becomes stagnant, causing the formation of acids, preventing the admission into the soil of air and warmth, which are indispensable to the perfection of the more useful kinds of plants.

To illustrate this, we quote from Prof. Johnston: "When an open pan of water is placed upon the fire, it continues to acquire heat, till it reaches the temperature of 212° *Fah.* It then begins to boil, but ceases to become hotter. Steam passes off, and the water diminishes in quantity. But while the vessel remains upon the fire, the water continues to receive heat from the burning fuel, as it did before it began to boil. But, since, as already stated, it becomes no hotter; the heat received from the fire must be carried off by the steam.

"Now this is universally true. Whenever water is converted into steam, the ascending vapor carries off much heat along with it. This heat is not missed, or its loss perceived, when the vapor or steam is formed over the fire; but let water evaporate in the open air from a stone, a leaf, or a field, and it must take heat with it from these objects; and the surface of the stone, or leaf, or the field must become colder. That stone or leaf also, must become coldest, from which the largest quantity of vapor arises.

"Now, let two adjoining fields be wet or moist in different degrees; that which is wettest will almost at all times give off the largest quantity of vapor, and will, therefore, be the coldest. Let spring arrive, and the genial sun will gently warm the earth on the surface of the one; while the water in the other will swallow up the heating rays, and cause them to re-ascend in the watery vapor. Let summer come, and while the soil in one field rises at mid-day to perhaps 100° *Fah.* or upwards, that of the other may, in ordinary seasons, rarely reach 80 or 90°; and, in wet seasons, may not even attain to this temperature.

"What, then, is the cause of the coldness and poverty, the fickleness and uncertainty of produce on land of the kind now alluded to? It is the presence of too much water. The application of this merely rudimentary knowledge, will enable farmers, (if they will but set about it,) to remove from many improvable spots the stigma of being poor and cold;—an appellation hitherto applied to them, not because they are by nature unproductive; but because ignorance, or indolence, or indifference, has hitherto prevented their natural capabilities from being either appreciated or made available. What is the remedy? A removal of the excess of water. And how? By effectual drainage." L. A.

Journal of Agriculture.

THE PURITANS.—Bancroft, the Historian, says the Puritans established a worship purely spiritual. To them the elements remained but bread and wine; they invoked no saints; they raised no altar; they adored no crucifix; they kissed no book; they asked no absolution; they paid no tithes; they saw in the priest nothing more than a man. The church, as a place of worship was to them but a meeting-house; they dug no graves in consecrated earth. Unlike their posterity, they married without a minister, and buried the dead without a prayer.

Highland Nurseries, Newburgh. NEW YORK.



A. SAUL & CO., in inviting the attention of their patrons and the public in general, to their very extensive collection of **FRUIT AND ORNAMENTAL TREES, SHRUBS, &c. &c.**, would respectfully inform them that the stock which they offer for sale the coming spring is unusually fine, both as regards quality of trees, variety of kinds, &c., &c.

The soil and climate of our Hudson Highlands have rendered proverbial the success of the trees sent from here to all parts of the union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the leading standard varieties, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as novelties of both native and foreign origin.

To particularize within the limits of an advertisement would be impossible; if they refer to their general catalogue, a copy of which will be sent to all post-paid applicants, on enclosing a post office stamp.

The following comprises a portion of their stock, and are all of fine growth, viz:

Pears in over 400 varieties, both standards on their own stock for orchard culture, and on the Quince for Dwarf, Pyramids, and Quenoucle, for garden culture.

Apples in over 300 varieties, both standards and dwarfs; also, Cherries, both standards and dwarfs; Plum, Apricot, Peach, Nectarines and Quince trees in every variety.

Grape Vines, (both native and foreign, for vineries;) also, Gooseberries (50 best Lancashire varieties.)

Current, Raspberry and Gooseberry plants of all leading and known kinds, together with Seakale, Asparagus and Rhubarb roots.

Ornamental Trees, Shrubs and Vines, both deciduous and evergreen, suitable for street and lawn planting, embracing all the new and rare Conifers, Weeping Trees and Shrubs of recent introduction.

Roses in every variety, including Hybrid perpetual, Hybrid Bourbon, Hybrid China, Hybrid Damask, Prairie, Bouras, Ayrshire, and other hardy, climbing and garden varieties, as well as the more tender Tea, China, Bengal, Bourbon, and Noisette varieties.

Herbaceous plants, a large collection of Paeonies, Phloxes Campanula, Penstemon, Enothera, &c., &c.

Dhals and bedding plants for the parterre and flower garden, in large quantities and variety.

Hedge Plants, 500,000 strong 2 year old Osage Orange in three sizes, at \$10, \$8 and \$6 per 1000. Also Buckthorn plants, 2 years old at \$8 per 1000. Arbor Vitae for screens, &c., &c.

Dealers and planters of trees on a large scale will be dealt with on the most liberal terms.

Newburgh, Feb. 18, 1854.

*2

Caveats.

PEOPLE'S PATENT OFFICE }
86 Nassau-St., New York. }

INVENTORS and others desiring to apply for Caveats, are informed that all the necessary drawings and papers are prepared by the undersigned with the utmost dispatch and on the most moderate terms. All other Patent business promptly attended to.

Persons wishing for information or advice relative to Patents or Inventions, may at all times consult the undersigned without charge, either personally at his office, or by letter.

ALFRED E. BEACH,
Solicitor of Patents,
86 Nassau Street, New York.
11w1*

Feb. 4, 1854.

Brahma Fowls.



The celebrated Brahma Fowls, purely bred, also Canton and Marsh Shanghae or imported fowls, for sale at fair prices.

WILLIAM N. ANDREWS,
Dover, N. H.

March 1, 1854.

2m

Fertilizers.

BEST PERUVIAN GUANO.

Superphosphate of Lime.—"DeBurg's No. 1."

Poudrette, of the best quality.

Ground Piaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,
5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

3*

Valuable Potatoes for Sale.

POTATO ROT.—A REMEDY BY WISE IMPORTATION AND REPRODUCTION!

THE subscriber offers the following valuable varieties of potatoes for sale. The N. Y. State Agricultural Society have generously encouraged their importation and culture.

1st. **THE ROUGH PURPLE CHILI.** This was imported at a great expense from South America, in 1851, and was the only sort out of eight adapted to our climate. For hardiness, yield, and quality for the table, it has no equal. Seventy-five small parcels of it were widely spread, in 1853, over twelve Northern States. From more than one third of them, embracing nine States, reports have been received. These reports, notwithstanding the unfavorableness of the season, usually show a yield varying from twenty to sixty pounds, from one pound planted. But two cases of disease have been reported, one from Mass., and one from N. Y., both in circumstances of very unfavorable culture. The adaptation of this variety to the varying soil and climate of our country is such as to render it superior to any now cultivated. Price \$8 ½ Bushel.

2d. **SEEDLINGS OF THE ROUGH PURPLE CHILI.** These were derived from the seed-ball of the preceding, in 1852. They present a considerable number of varieties. They have been chosen by three successive selections, from nearly eight hundred varieties, so as to secure hardiness, the best yield and fine flesh. In season of maturity many of them, and in color and shape the most of them, exceed the parent. They are now offered to the public, after a most laborious and costly cultivation, in the fullest confidence that they will make an addition of valuable sorts to those now in use, such as have never before been made. Connected with them are some other sorts of the same age, and equally valuable, and similarly selected from three other families. Many of these seedlings were widely tested the last year, in connection with the Rough Purple Chilis. Those varieties of these seedlings which are TOO LATE for the Northern States, have been expressly selected for the South. Price \$8 ½ Bushel. Each parcel ordered will be safely packed and directed to the purchaser by Railroad, or Express, as directed, and at the expense and risk of the purchaser. No package failed last year to reach its destination.

Dealers will be allowed a discount of twenty-five ½ cent.

Purchasers who take parcels from my house and pack for themselves, will be allowed twenty-five ½ cent. discount.

All orders answered for cash only.

RESIDENCE, near the State Lunatic Asylum.

CHAUNCEY E. GOODRICH,

Utica, N. Y., Feb. 10th, 1854.

References.

The following persons are acquainted with these potatoes, having all cultivated them the last year:

D. A. Bulkley, Williamstown, Mass. A. S. Mitchell, Farmington, Conn. A. Bradley, Whitestown; H. H. Eastman, Marshall; Dr. H. P. Hays, Wyoming; J. W. Briggs, West Macedon; M. P. Covert, Schenectady; Safford Buckingham, Poughkeepsie, N. Y. E. L. Colt, Patterson, N. J. R. C. Walker, Elizabeth; Jas. S. Negley, and Jno. Fleming, Pittsburg, Pa. J. C. Holmes, Detroit, Mich. B. Murray, and H. L. Brush, Ottawa; Rev. G. W. Gale, Galesburgh, Ill. D. D. Cathcart, Bristol, Ind. A. C. Isham, Madison, Wis. March 1, 1854.

To Farmers.

THE subscriber is now prepared to receive orders for the Improved Poudrette. It has been manufactured under the advice of some of the best agricultural chemists in the Country, and is now commended to the public as the most certain and cheap Fertilizer that can be obtained, acting favorably on all crops, and on all soils. Six different articles are used in its composition, which combined make it a perfect manure for every crop raised in New England. It is finely adapted to corn, and the present and prospective high prices of this indispensable crop, ought to induce all farmers to increase the quantity planted, which they can do profitably by using the Improved Poudrette.

Prof. Mapes says of it, "no farmer using it once, will be willing ever to dispense with it." I raised corn with it the past season at a cost of less than 40 cts. ½ bushel. Price in Providence \$1.50 ½ bbl., cash. It can be obtained of Messrs. PARKER & WHITE, 60 & 63 Blackstone Street, Boston.

T. B. HALLIDAY,
13 West Water Street, Providence, R. I.
3mo*

Feb. 25, 1854.

Superphosphate.

NO expense has been spared in the combination of this most Fertilizing Manure, which contains the Nutritive Properties of all Plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in Bags, at \$40 per ton of 2000 pounds each.

Office of the New York Superphosphate Manufacturing Company, No. 159 West Street, New York.

VICTOR R. KNOWLES, Agent.

March 1, 1854.

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Imported Suffolk Boar, BULRUSH.



The subscriber now offers the services of his Suffolk Boar, **BULRUSH**, (to those who wish to improve their Stock.) Bulrush was imported last spring, and is now about one year old. He is remarkably vigorous, and a superior animal. He will be kept for the present, at my stable, near the Depot, Concord, Mass.

JOHN RAYNOLDS.

Dec. 17, 1853.

tf.

Cranberry Plants.

BELL, or Egg shaped Variety—commonly raised in New England, and no doubt is the best variety for cultivation—they are hardy and prolific—sometimes produce over 250 bushels per acre, after 2 years, and needs but little cultivation. Circulars relating to culture and price will be forwarded to applicants.

F. TROWBRIDGE.

New Haven, Conn.

Feb. 18, 1854.

tf.

Super-Phosphate of Lime.

THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *Phosphate*, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DEVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

tf.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

Terms, \$1.00 per annum in advance.

All subscriptions to commence with the volume, Jan. 1.

The FARMER is devoted exclusively to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

Also published at the same office every Saturday, on a large handsome folio sheet, the

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An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments, under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

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The monthly contains nearly the same matter as the Agricultural department of the weekly.

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All orders and letters should be addressed, *post-paid*.

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Postage.—The postage on the New England Farmer, monthly, is 15 cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Kentish's Prepared or Artificial Guano,

TWENTY DOLLARS PER TON.

POTATO ROT.

I have used "Kentish's Prepared Guano" this season on potatoes. My crop was large and all sound. Where I did not use it, the potatoes were all rotten and worthless. My neighbors, also, who have not used this Fertilizer, have not raised a salable potato this year. I consider it a preventive of Rot.
Sept. 29, 1850.

G. PREAUT.

Extract of a Letter from E. B. Addison,

Alexandria co., Va., April 23, 1851.

Dr. John H. Bayne, President of Prince George's Co. Agricultural Society, Maryland, has desired me to inform you that last spring he used African Guano, Poudrette, Peruvian Guano, and your Prepared Guano, on Potatoes. The first two were distanced, but the result from the Peruvian and yours was about equal. He pronounces your Prepared Guano to be a very excellent article, and esteems it highly.

Richmond Co., N. Y., July 27, 1849.

I have made use of Kentish's Prepared Guano on potatoes, cabbages, cauliflowers, and grapes. I found the result much more satisfactory and the produce much larger than where I used imported Guano or any other kind of manure.

EDWARD JENNINGS, Gardener.

It is equally Fertilizing on all Crops. See the numerous certificates on this subject, in the printed circular, to be obtained at Kentish & Co.'s Depot, No. 159 West Street, city of New York.
Feb. 18, 1854.

3w*March

Suffolk and Middlesex Pigs.

I have now a prime stock of imported or full bred Suffolk and Middlesex Swine, for sale.

Having just bought the entire stock of G. W. Wilson Esq., of MALDEN, including his fine old Boar and Breeding Sows, I can fill orders with superior samples—old or young. The stock can be seen at my residence, Boardman St., Melrose, Mass. Address

GEO. P. BURNHAM,

Box 22, Post Office, Boston.

Feb. 4, 1854.

4w3m*.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, APRIL, 1854.

NO. 4.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR APRIL.

"Now the golden morn aloft
Waves her dew-bespangled wing;
With vermell cheek, and whisper soft,
She wooes the tarty Spring;
Till April starts, and calls around
The sleeping fragrance from the ground."



KEEPING April has come, and "bath put a spirit of youth in every thing." Not so rough in her moods as March, but still more uncertain. She "is at once the most juvenile of the months, and the most feminine—never knowing her own mind for a day together. Fickle as a fond maiden with her first lover:—coying it with the young sun

till he withdraws his beams from her, and then weeping till he gets them back again." But April is a sweet month, after all. It is a month full of promises:—every sweet breath from the South, and every gentle shower, is a new promise of glad and beautiful things; and then what a charming hope remains. And with all this promise for the future, April brings the early flowers and birds, with their fragrance and their song. What is all the "pride, pomp and circumstance of glorious" Autumn, compared with these! Somebody has compared life to a "Fitful April day"—we wish it were no worse, for most of the April "fits" are very pleasant ones indeed.

But we will let the poets take care of themselves, while we look a little after the

Plowing.—There are two or three general rules to be observed in this operation which are so essential to success, that we hope our young readers, at least, will give them so much attention as

not to fall into error. The first is, not to touch the land until it is in a fit condition to be plowed, even though the season may be a little late for this work. If the proper drainage and evaporation has not taken place, the workman will find that the furrow turned over has been pressed into a kind of mortar, so that when the harrow is applied, instead of the furrow falling into a fine tilth it breaks into lumps, which become baked and hard, impervious to air and water, and likely to remain so through the entire season. These not only mar the appearance of the field, but are in the way of the cultivator and hoe, and constantly roll upon the young and tender plants and destroy them.

But another error is, plowing *too shallow*, for the sake of doing the work quick, and pressing forward the spring work rapidly. This is done at the expense of much comfort all through the remainder of the season, and a considerable abbreviation of the crop, whatever it may be. Nature, if aided a little by giving the surplus water an opportunity to run off, will bring all lands into a proper condition to be plowed and planted, through her powerful alembics, the sun and air, quicker and better than anything that man can do for it. In this important operation, bring in the *head* to the aid of the hands, and the work will prosper better.

SOWING GRAIN.—Sow early—that is, as soon as the soil is in condition,—then your crops get a good start before drouths come on; thus the roots of the plants are struck deep, are widely spread and will perfect their seeds.

CARROTS.—Sow early, and disregard the old notion that by sowing late you save a good deal of weeding; that doctrine has lost many a crop of carrots. See some remarks on the cultivation of this root under the head of "Extracts and Replies."

PEAS.—They laugh at Jack Frost, and may be put in early—especially if you want a crop in June.

FENCES.—Weak fences are something like weak resolutions—the former will not keep off vicious cattle, nor the latter vicious propensities. See that they are all stout and strong, in good season, before the animals have found out a weak spot.

FRUIT TREES.—All that are intended to be transplanted should be taken up before a bud or leaf starts, set in by the heels, and kept until the ground is ready to receive them. Great care must be observed not to injure the roots, stem or branches. Set no more than you can put down in the most thorough manner, and find time to take care of afterwards.

THE GARDEN.—Clean up the strawberry-beds; cut out the old wood from the raspberry bushes, and tie those which remain to stakes or trellises, and look after the currant and gooseberry bushes.

THE FLOWER GARDEN.—A few—if only a very few—should be about every farm-house. They are pleasant to the children, and to the traveller as he passes; and it will promote your own good nature to see others happy.

THE DOOR YARD.—It is always a bad sign to see the wood pile scattered about the yard, mingled with old wheels, worn-out baskets, bones, horns, parts of wagons, and wrecks of old carriages. A green, clean, smooth lawn is always attractive and pleasant, and is highly suggestive of the same good order in-doors.

APRIL is a most important month to the farmer, and all its duties should be performed with fidelity and promptness.

FIRST ANNUAL REPORT

OF THE SECRETARY OF THE BOARD OF AGRICULTURE.

BY C. L. FLINT.

Last week we briefly alluded to this report, and said we thought it a document of more value than any that has preceded it in this State, on agricultural subjects. A more careful examination fully sustains the opinion then expressed. No other State publication has ever attempted to collate from the several towns important information in relation to the stock, the grass and grain crops, pasturage, woodland, the fruit crops, renovation of lands, manures, farm labor, profits of farming, points of excellence in the different breeds of cattle, &c. &c.

In order to draw out the information desired on these several subjects, together with many others which we have not enumerated, the Secretary prepared a circular, containing some 28 questions, a copy of which he sent to every town in the State on the first of September last, and to such individual as he supposed was interested in the subject and would give full and correct answers to the questions propounded. In many instances his anticipations were fully realized; his questions not only being answered, but a brief sketch of the

condition of agriculture in the town given, with such manifestations of a decided interest in the cause as will rapidly promote its interests. About two-thirds of all the towns in the State were heard from, and it is mainly from these materials that he has given us the interesting details of the condition of agriculture in the several counties.

It was our intention to extract freely from this report, which we shall hereafter do, in relation to particular subjects; but on recurring to the first part of the report in which the Secretary reviews the past and present condition of the agriculture of Massachusetts, we find the whole so full of interest and so applicable to all New England, as well as Massachusetts, that we shall give the first fifteen or twenty pages, entire. We believe we have no reader but would be glad to see the whole, and as only a comparatively small number of copies of the report is printed by the State, we shall draw upon its pages more liberally for that reason.

Aside, however, from the aid afforded by these returns, it will be evident to the reader that the Secretary has given all the subjects which he has discussed much earnest thought and investigation. Indulging in no crotchets or fanciful speculations of his own, he has given a mass of valuable and reliable facts which will strongly tend to increase the products of the State and thereby add materially to its wealth. We wish a copy of the report could be placed in the hands of each farmer of the State.

For the New England Farmer.

REMEDY FOR POTATO ROT.

MR. EDITOR:—The best remedy I have ever found for the disease that has proved so injurious to the potato crop, is to plant a kind of potato that is never affected with the disease. This I have done successfully for the last ten years, not losing a single crop, nor a single bushel, during the whole time. The kind I used was introduced into this town by my father, some 20 or 30 years ago. It is a black potato, much like the black chesango. It is of a good quality, takes the season through, especially from April to August. It is very productive, and has given me at the rate of some 350 bushels to the acre. I plant several kinds for the sake of variety, but all have been more or less subject to the rot, some entirely destroyed by it, except this. I have, therefore, come to regard it as the only reliable kind; and therefore plant the principal part of this sort, so as to be sure of a crop, whatever may be the fate of other varieties. I have now about 200 bushels on hand, perfectly sound and good.

I make this communication because many farmers may not know that there is a kind of potato, and that a very good one, which they can always safely and profitably raise. No one can say, of course, that they never will rot, but my own experience is, they never have.

I am yours truly, AMASA WALKER.
North Brookfield, March 1, 1854.

For the New England Farmer.

IS IT PROFITABLE TO FATTEN SWINE IN NEW ENGLAND.

The question of the profit of fattening swine in the New England States was suggested by reading an extract in the Monthly No. of the *New England Farmer* for January, 1854, taken from the *Ohio Cultivator*, and detailing the results of an experiment projected in Ohio, to determine how much pork a bushel of corn will make. It appears from the extract, that S. B. Anderson weighed off 100 thrifty hogs, placed them in an enclosure, fed them 100 days with as much corn as they would eat, and found that they consumed, on an average, 100 bushels every six days, and made an average gross increase, per hog, for the 100 days, of 175 lbs., or at the rate of 1½ lb. each, per day; that 1 bushel of corn made a gross increase of 10½ lbs. of pork, or, by throwing off 1-5, to come at the net weight, that 1 bushel of corn made 8 2-5 lbs. of pork, net. It further appears, that if 1 bushel of corn makes 8 2-5 lbs. of pork, then—

When pork sells for	3c per lb.,	corn bring	2½c per bu.
"	4	"	33
"	5	"	43
"	6	"	50

The extract does not state the condition of the corn fed to the 100 hogs, but I suppose it was fed whole and uncooked, and perhaps on the ear. Whether or not, on the basis of the above table of prices, it is profitable to Ohio farmers to feed corn to hogs, is more than I know.

Here in New England, it is not profitable to fatten swine on clear corn, unground and uncooked, nor in any form, if the system of feeding is a loose and careless one; but I shall attempt to show that with proper management, we can make pork at a profit.

Numerous interesting accurate experiments have been made in various parts of the country, to determine the difference between cooked and uncooked food for fattening swine, and resulting greatly in favor of the cooked food. The late Mr. Colman made a very valuable communication to the Transactions of the Essex County Agricultural Society, detailing various experiments of his in fattening pigs upon Indian meal boiled with water. Here are the results of three of his experiments:

2 pigs in 18 days consumed	6 bu. corn, and gained	83 lbs., gross
2 " 20 " "	4½ " "	104 " "
4 " 19 " "	7½ " "	108 " "

Total of grain consumed 18 bu. Total gain, 300 lbs.

Averaging the three lot of pigs, the gross increase was 16½ lbs. One of the pigs in the first lot was killed at the expiration of the experiment, and his net dressed weight was found to be 1-5 the less than his gross live weight. If then we deduct 1-5 from the average gross gain of the 8 pigs, we find their net gain to have been 13½ lbs., or that 1 bushel of corn, ground into meal and the meal cooked, made 13½ lbs. of pork, net.

The late Mr. Phinney, of Lexington, Mass., of great and varied experience in agricultural matters, was celebrated, among other things, for his superior breeds of swine, and mode of rearing and fattening them. He gave several communications to the public, showing that 1 bushel of corn, fed in the form of ~~cooked~~ meal, will make from 12 to 15 lbs. of pork, net weight. In conversations with

him, he frequently related to me how he made this amount of pork with a bushel of corn, and I have no doubt but he knew, with great accuracy, whereof he affirmed. I have now before me the records of experiments made by several other persons, and they show that 1 bushel of corn, ground and cooked, will make all the way from 12 to 16 lbs. of pork, net.

Taking the lower estimate, if 1 bushel of corn makes 12 lbs. of pork, then—

When pork sells for	6c per lb.,	corn brings	72c per bu.
"	6½	"	78
"	7	"	84
"	7½	"	90
"	8	"	96
"	8½	"	102

But there is another circumstance connected with the rearing and fattening of swine, which, if properly attended to in practice, will make the business more profitable than the above table indicates: I mean the great quantity of valuable compost the swine will manufacture, if supplied with suitable raw materials. There can be no more legitimate and pertinent inquiry for the farmer of New England than this,—How can I convert the waste or unemployed vegetable substances on and around my farm into good manure? In considering, then, the policy or profit of fattening swine, the item of manure must have a prominent place in the account.

On the basis that a bushel of corn, ground into meal and properly fed, will make 12 lbs. of dressed pork, we will take four early March pigs, of a good breed, and when they are six weeks old place them in a pen. I name four pigs, because that is about the right number to be in one pen together, and excite one another to eat and thrive well, and work industriously in tumbling the compost over. The four pigs shall be fed till 9 or 10 months old, and shall from time to time be supplied with materials, in a well-arranged pen, for making manure. We will state the average price of the first quality of pork at 7 cents per lb., which is a low estimate, taking a run of 10 or 12 years past. The average price of corn for 10 years past, in my locality, would not exceed 80 cents per bushel; but we will call it 84 cents. With these conditions, the following statement may be made:

The four pigs, fed till 9 to 10 months of age, on prepared corn meal, will weigh, on an average, dressed	300 lbs. each, or in all 1200 lbs., worth 7c per lb.	\$84.00
Supplied with raw material, they will make from 25 to 35 loads of compost, measuring 35 bushels each, and richly worth a bushel of corn each; say 30 loads, 84c.		25.20
		\$109.20

The following deductions must be made:

Worth of pigs at 6 weeks old, \$2 each	\$8.00
A bu. of corn making 12 lbs. of pork, and the pigs weighing 300 lbs. each, they have each consumed 25 bu., or in all 100 bu. at 84c.	84.00
Balance, over and above 84 cents per bu. for the corn, of 17 cents per bu., or in all	\$17.20

The above balance of \$17.20 will well pay the labor of feeding and of supplying compost materials, and a pile of compost has been prepared, at a cheap cost, which will make a good mark wherever applied on the farm.

The foregoing calculations are in a good degree based on experiments made by other persons; but on a careful review of my own practice for several years past, I can furnish a statement showing the profit of fattening swine in a more favorable light

than the above account presents. Before giving my own account, however, a few considerations will be mentioned, which though more or less incidental, are yet quite important to the subject in hand.

In fattening swine, very much of the profit depends upon the breed of hogs fed; some breeds paying a good profit for what they consume, while others, fed on the same amount and quality of materials, barely pay or make a loss on what they eat. Crosses of the Suffolks or Mackays with our best larger breeds are certain to pay well for fattening, if properly fed. The best practical pigs, however, that I have had any experience with, are those made by a half-and-half cross between the Suffolk and Mackay breeds. The cross-bloods possess the essential qualities of early maturity and a tendency to take on flesh rapidly, combined with bone enough to stand up straight on their legs till the time of slaughter; and can easily be made to weigh from 300 to 400 lbs., at ten months old. With such pigs, I always feed out my corn courageously, and realize a satisfactory return for it in pork and compost.

The amount and value of the compost made during the time the pigs are fattening, will depend upon the care and system used in supplying good materials to them, in a well-arranged pen. The materials thrown to the pigs a little at a time and often, may be waste or unemployed substances, of every name, which are rich in vegetable matter—such as muck, scrapings from the forest, thickly-matted turf,—especially if from a soil different in kind from that to which the compost is to be applied,—green brakes and bushes of a year's growth, green weeds of every kind, the rich wash centering in hollows, strawy horse-manure which cannot otherwise be preserved from damage, before wanted for the land, &c., &c. The pen for four pigs should not exceed some 15 feet square; or perhaps the best proportion, considering the convenience of getting the materials in, and the compost out of the pen, is some 10 or 12 feet wide, by 16 feet long—thus concentrating the droppings within a small space, making the compost up in height rather than in length and width, and lessening exposure to evaporation. The pen should be dry, cool and airy, in distinction from a slough, should not be in a dark, miry, foul place away down under the barn, and should be covered with a roof—a cheap one will do. Shelled corn should be occasionally forked into the compost, to encourage the pigs to work. There should be a feeding-apartment, leading out of the compost pen, and always kept perfectly sweet and clean.

For feeding the pigs the first 8 or 10 weeks of what may be called the forcing or fattening process, or say through September and October, it is well to raise a mixed crop of the lighter grains, as peas and oats, or barley and oats; for this kind of feed causes the pigs to make more bone and size of carcasses in proportion to what they gain in pork, than corn-meal does. For this period, I prefer peas and oats to any other grain, and sow for the purpose $\frac{1}{4}$ bushel of peas with $\frac{1}{4}$ bushel of oats to the acre. The product is about the right mixture for feeding; and ground into meal and fed in about equal quantities with cooked vegetables, the pigs commence fattening finely, while at the same time they make bone and grow rapidly, so that fed the following two months on corn and

cob-meal they easily attain a weight of from 300 to 400 lbs. each, dressed, and are strong enough in their legs to stand up well till the day of slaughter. During this period, also, the refuse apples, small potatoes, and meaner portions of various root and garden crops, some or all of which are always afforded by the farm, may be advantageously cooked and fed to the pigs. A boiler should be set in a convenient place for cooking swine-feed, and the boiling may be effected with very cheap fuel. Two tubs should be provided to receive the boiled food, and fed from alternately,—the materials in once undergoing the desirable fermentation while feeding from the other. The cooked vegetables, smoking hot, should be placed in the tub in layers with the ground peas and oats, the whole mashed fine together, and after standing covered an hour or so, the wash of the dairy and kitchen may be added, making a thick soup of the mass, which may then stand to undergo a moderate fermentation. If fermentation however is carried too far, the quality of the food will be injured; but if suffered to proceed to a mild degree, the food is the more readily dissolved by the fluids of the stomach, and more fully appropriated in the carcass.

For the last 7 or 8 weeks, or through November and December till the time for slaughtering, I prefer cooked corn and cob-meal to any other feed. The meal is more light and bulky than clear corn-meal; swells very much by cooking; distends without overloading the stomach; is not so concentrated but what its nutritive properties are easily and fully digested and assimilated; and the ground cob, besides its considerable amount of nutritive matter, is known to possess alkaline properties which go to neutralize the too great acidity apt to be produced in the stomach by ground corn. An accurate experiment has been made in Virginia, to ascertain the amount of saccharine or nutritive matter in the corn cob. Ten bushels of corn and cob, and ten bushels of clear shelled corn, were in separate lots subjected to distillation. The ten bushels of corn and cob yielded thirteen gallons of spirits, and the ten bushels of clear corn eighteen gallons. Allowing that the ten bushels of corn and cob would have given five bushels of shelled corn, there would be left as the product of the cobs, four gallons of spirit, or nearly half as much as was afforded by five bushels of corn.

Having thus stated the incidental but important considerations connected with the question I am attempting to determine, I am now prepared to make out an account of the profit of fattening swine, based on personal knowledge and practice.

Four early March pigs, of a first rate breed, are placed in a pen when 6 weeks old, or about the middle of April. Those of the same age are selected, and if all of one litter so much the better, as they will be more likely to live in peace together. From about the middle of April till the first of September, which is about 20 weeks, they are kept on light cheap food, as the wash of the dairy and kitchen, with a little corn and cob-meal added after the first 4 to 6 weeks; and they also have the weeds and other green trash of the garden thrown to them from time to time. After looking the matter over carefully, I have concluded that if the light and mixed food of this period is estimated as of the average value, per day, of 8 quarts

of corn and cob-meal, that will certainly equal, and I think exceed, the real cost of keeping.—Eight quarts of corn and cob-meal per day, is 56 quarts per week, or 35 bushels for 20 weeks, equal to 17½ bushels of clear corn, the price of which we will call 85 cents per bushel, though the average price of corn for ten years past in the region around me will not exceed 80 cents; say then

27½ bushels of corn, at 85c per bu.....	\$14.87	
The miller's toll for grinding 35 bu. corn and cob, at 4c per bu.....	1.40	\$16.27
Through Sept. and Oct., which is 8½ weeks, the four pigs have ½ bu. per day of peas and oats ground, mixed with ½ bu. per day of cooked hot vegetables, the whole slightly fermented; they consume, then, 3½ bu. of peas and oats per week, or say 30 bu. in the 8½ weeks, worth 60c per bu.....	18.00	
Also, 30 bu. small potatoes, or other refuse vegetables, worth, cooked, 20c per bu., which is rather high.....	6.00	
The miller's toll for 30 bu. peas and oats, at 4c per bu.....	1.20	25.20
Through November and December, till killing time, say 8 weeks, the four pigs have, on an average, the meal made from 1 bu. of ground corn and cob, per day, well cooked, which is 1 bu. corn and cob per week, or 56 bu. in all, equal to 28 bu. of corn, worth 85c per bu.....	23.80	
Toll for grinding 56 bu. corn and cob, 4c per bu.....	2.24	26.04
Worth of the four pigs at 6 weeks old, \$2 each.....		\$0.00
Total cost of fattening the four pigs.....		\$76.51

The other side of the account:

When slaughtered, the pigs will average 300 lbs. each, dressed, or will weigh 1200 lbs. the four, worth 7c per lb.....	84.00	
They have prepared 30 loads of compost, between the 15th of April and 1st of Jan., worth a bushel of corn, or 85c per load.....	25.50	109.50
Deduct cost of fattening.....	76.51	
Balance, over and above market price of the materials consumed.....		\$33.99

MEMORANDUM.—If the price of corn were \$1 per bu., then on the 17½ and 28 bushels of corn in the above account of cost of fattening, there would be an addition of 15c per bushel, making an increased cost of \$6.82.

So far as I can judge, or have reason to believe, the above statement of the cost of getting four pigs of a first-rate breed up to the weight of 300 lbs. each dressed, is plenty large enough; but if the reader should insist that it ought to be made larger, I in turn may with propriety claim additions to the other side of the statement, while the average price of corn for a run of 10 years past would not, in my region of country, exceed 80 cents per bushel, my pork has on an average sold for more than 7 cents per lb.; and I think it may be truly said that an extra quality of pork, such as the system of feeding a first-class breed of pigs as above described may always make, will any year command, in any considerable market, from ¼ to 1½ or 2 cents per lb. more than the current price of pork. As for the weight of the pigs, I may claim some 100 lbs. or more addition on the four; and as for the compost made by the pigs, I had better pay one dollar a load for it rather than not have it.

By feeding the four pigs from Sept. 1st, to about Dec. 1st, on a greater quantity of cooked vegetables and a less quantity of meal per day than is reckoned in the above account, the expense of feeding would be lessened; but in offset, the pigs thus fed, and killed at the age of 10 months, would not weigh as much, the texture of the pork would not be as firm, nor the price quite as high as if fed as stated in the account above. Still, farmers situated in localities rather unfavorable to the profitable raising of grain, and where it commands

rather a high price in proportion to the price of pork, may find it advisable, in fattening swine, to feed more largely of cooked vegetables and less of grain than is my custom, and take up with a less amount of pork.

For one, I am satisfied that it is profitable to fatten a good breed of swine here in New England, provided the business in all its departments is managed understandingly and with strict system. I have to say to my brother farmers, that before purchasing town manures very largely, or sending money off for foreign concentrated fertilisers, it is well to look about and see if the cheaper materials and means at home are fully employed for fertilizing the soil at a less cost. The substances near at hand and fit for making a rich compost, are none the less valuable as fertilisers because they lie common and in abundance on every hand.

F. HOLSWOOD.

Brattleboro', March 4, 1854.

For the New England Farmer.

PRUNING ORCHARDS.

MR. FARMER:—Were a tree gifted with speech, what complaints should we hear on visiting most orchards in New England. Of harsh treatment—commencing with that *bane* of all nurseries and young trees, the murderous jack-knife in the nursery—then *torn* from its place, leaving a large portion of its roots, and set as we would a stake to struggle by itself. The poor tree hesitates a year or two whether to attempt a new existence or give up the ghost without further struggling—many of them, particularly root-grafted trees grown in hot-beds of manure, very sensibly prefer the latter course; and who can blame them?

For a few years past many places in New England have been flooded with tall shrubbery, *mis-named* apple trees, by unprincipled or ignorant speculators from Western New York. These have been sold by calling on individuals and getting orders for trees (!) to be sent the next season. The seller has a speech for every one, stereotyped for him by the owner before starting, and talks so learnedly of the height of his trees, their rapid growth and root grafts, that he induces many to engage them in advance. The trees are received in due time, and the purchaser, much to his surprise, finds a bundle of long switches of some three years' growth grafted on pieces of mutilated roots, instead of such trees as he expected. But, he says, *perhaps* they may grow—it is a small matter to quarrel about, so he plants them for an orchard, and in three years a good portion of them are not to be found in this world.

Such as have been reared in New England in the good old way, practiced and taught by our Fathers, are more hardy, and commence a new struggle. Removed from the protection of their fellows in the nursery, they attempt to protect their naked trunks from our burning suns by twigs and leaves, but are still pursued by the old enemy, the jack-knife, if the owner finds time to use it. After growing in a state of half starvation in a soil deprived of its original ingredients necessary for their health and productiveness until thoroughly diseased, they then attempt a new existence by throwing out new limbs or sprouts, but are now met by the axe and hand-saw, the sprouts are broken off and the large limbs removed in quanti-

tise, in March or April, when the owner, having completed his winter's work, has time to do it. As warm weather approaches, a poisonous sap runs from the wounds, blackening and killing the bark, when a few years ends their miserable existence.

This may look like a fancy sketch, but I ask any intelligent cultivator, looking at *cause* and *effect*, if it is not the true cause why so many orchards in New England are worthless at fifty years of age, instead of being healthy and fruitful at two hundred years old, as they would be with proper treatment.

A tree left to itself needs little or no pruning. Look at our fields, where we find owners of taste, we find a liberal supply of shade-trees where Dame Nature planted the seeds and has taken all the care of them. Does she not dispose of all the small twigs and leaves on the bodies as soon as she has no further use for them? And, as a whole, does she not form as good or even better, more healthy and graceful tops, than we find generally in orchards that have been liberally aided with the jack-knife and hand-saw? Certainly from such a teacher we ought to be able to take some practical lessons. I do not say that pruning is never necessary, but do say that, in the culture of trees, nature should be studied and *aided*, never *thwarted*.

When one procures trees for orchard planting, his inquiry should be, not how tall! but what is their diameter at the base!—are they on entire roots!—at what distance have they grown from each other in the nursery!—what has been their exposure to winds!—have they been once or twice transplanted and cultivated so as to be well filled with fibrous roots!—and have they been grown in ordinary soil, or have they a forced growth by stimulating manures? I will not insult the common sense of any man by saying what answer should be given to these questions. No tree requiring a stake should be planted in an orchard. If not rooted and grown enough to stand alone against all winds without, throw it aside as useless.

Trees properly planted require attention during the first few years to form a well balanced top, taking out some and shortening other limbs. After this the pruning required is very trifling—in most trees none during the ordinary life of man. But in this wicked world we must take things as they are and not as they should be, or would have been, with proper early attention and culture, and as far as practicable, remedy evils already existing.

The most common error in pruning is thinning out the whole interior or central portion of a tree to "let in the sun," thus destroying one-half of the bearing branches, leaving long, naked limbs producing fruit only at the ends beyond the reach of anything larger than a raccoon, without the aid of long ladders, lessening the quantity of fruit and injuring the quality. Apples protected by leaves are much *better, larger and fairer*, (being grown as Nature designed,) than when grown on the ends of long branches, exposed to the sun in July and August. In the cool, moist and cloudy atmosphere of England, this course is not only proper but necessary, some of our American apples even requiring the trees to be trained to a wall to ripen their fruit, but the course practiced and taught by the best English cultivators is for their

climate, not for ours. A tree properly trained for them in a few years may be ruined by the hot suns and cold winters of New England.

Trees require different training, depending on varieties. A course proper to perfect the Northern Spy or Newtown Pippin is wrong for the Rhode Island Greening and northern varieties generally.

When old trees are grafted, a very different course of thinning out is necessary, and generally during the first few years it is necessary to cut out many of the grafts. It is of little use to prune old trees standing on worn out soils (as is the case with most of our old orchards) without first cultivating, manuring and supplying alkalies, of which the soil has become exhausted; but as this article is already quite too long, I shall say nothing of cultivation.

When a tree throws out sprouts on its branches it is a sure indication of disease, and the natural remedy is to leave the best to form new limbs and gradually remove the old branches. If this is done with the *first* sprouts, it will be necessary to leave very few, and cut out old branches accordingly. Old decayed trees which have been entirely neglected, when filled with vigorous shoots, can in a few years have entire new tops by reserving the strongest in proper places and cutting out all the old limbs. These, every man understands, should be cut close to the growing limbs, and so as to heal well, and covered with some composition. The best I have ever tried is composed of tar thickened with brick dust, and applied when warm with a brush. Grafting wax or Gum Shellac dissolved in Alcohol is liable to peel off on large limbs.

The time for general pruning in New England is in June or early in July, after the first growth. The sap is then rapidly formed, and descends from the leaves so that all fresh cuts commence closing immediately. Large dead and dying limbs may be cut through the summer, September and October, if covered with composition. All winter pruning is bad. February, March and April are the worst three months in the year for pruning any trees. Saps soon after ascends, flows from the fresh wounds made by cutting large limbs, poisoning and killing the bark, and, if a general pruning is then done, it is very destructive.

I am aware that winter or early spring pruning is advocated by many very intelligent men, but in a country where every winter the thermometer falls from 10° to 20° below zero it is far better to let trees alone. If any one will notice an orchard so treated (and it is often done)—see it again in August with the black and dead bark on limbs and bodies caused by flow of sap, and mark its progress a few years, he must be satisfied it may be as well to cut a tree at the root and remove it entire, as to cut off one-fourth of its top in the winter or early spring.

C. GOODRICH.

Burlington, Vt., March, 1854.

REMARKS.—We bespeak for this article more than the ordinary attention of the reader.

☞ Many who find the day too long, think life too short; but short as life is, some find it long enough to outlive their characters, their constitutions, and their estates.

WHERE DOES ALL THE CORN GO TO?

When we read of the twenty-five thousand bushels of corn raised in a single year, by Mr. ELLSWORTH, in Indiana, and of the ten, fifteen, twenty, and twenty-five hundred barrels produced on single plantations or farms in Virginia or Ohio, beside the vast aggregate from the smaller plantations and farms scattered through the land, well may we inquire, "where can it all go to?"

On looking at the pages of the "*United States Economist*," a most valuable paper printed at New York, and principally devoted to money matters, commerce, manufactures and state of the markets, we find at least a partial solution to the question.

This paper gives a statement of the corn shipped from the port of New York within the short space of two weeks ending March 11, 1854, as follows:—

To Liverpool,	305,733 bushels.
To Belfast,	12,330 "
To Queenstown,	13,016 "
To Glasgow,	35,398 "
To London,	7,470 "
To British N. A. Colonies,	1,380 "
To British West Indies,	630 "
To Cuba,	566 "

From Philadelphia, mostly to Liverpool:

Corn, 302,057 bushels. Corn Meal, 63,236 bushels.

From Boston, to foreign ports:

Corn, 7,512 bushels. Corn Meal, 1,560 bushels.

From Baltimore, to foreign ports:

Corn, 69,446 bushels. Corn Meal, 720 bushels.

We subjoin the following table as affording at a glance the amount exported in a single week, and also the aggregate since Jan. 1. Comparatively little is sent from the Southern ports, most of it being first brought North, and re-shipped to foreign ports.

Exports of Corn from New York to foreign ports for the week ending March 9, 1854, compared with the corresponding week of last year:

To—	1853		1854	
	Bush.	Value.	Bush.	Value.
Liverpool,	86,178	\$57,128	129,434	\$127,479
Glasgow,			20,746	20,748
Belfast,	5,980	5,927		
Havre,			3,808	3,850
British West Indies,	668	448	100	100
Cuba,			349	418
New Grenada,	240	170		
Total Corn,	95,516	\$63,663	154,430	\$152,592
Total in February,	109,982	\$76,866	555,698	\$564,564
Total in January,	42,840	31,690	383,927	327,498
Since Jan. 1,	248,653	172,042	1,044,063	1,044,464

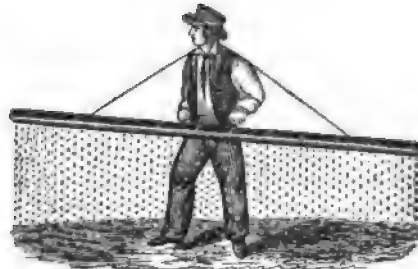
Now if we multiply the amount sent from the single port of New York in one week by the 52 weeks in a year, we shall have the enormous amount of eight millions and eight thousand bushels sent from a single port in one year!

Then we have gathered above, that, the sum of 444,481 bushels have been sent from the ports of Baltimore, Philadelphia and Boston, in about two weeks, which, multiplied by 26, half of the weeks in the year, would give an aggregate of eleven million, five hundred and fifty-six thousand, five hundred and six bushels, making 19,664,506 bushels dis-

posed of by sending it off to feed our hungry brethren across the water. We have no idea that this is any thing like the true amount sent out of the country; but if it is, it is only a moiety of the whole amount expended.

Corn meal has now become an article of food in almost all families of the county, so that vast quantities are required for this purpose; then look at the immense amount fed to horses, cattle, swine, poultry and sheep. There is scarcely a town in New England but uses its six to ten thousand bushels a year, of southern corn, in addition to the products of its own acres, and then must be added the vast amount used for distillation.

Even in New England, the corn crop is an easy and profitable one to raise, with a ready market at the door of any farmer who produces it. War or no war, a large surplus beyond our own wants will be needed; in this view it becomes us as farmers, to see if we cannot produce enough for our own wants and keep our cash for some other purposes than expending it for corn.



WELLS' PATENT GRASS SEED SOWER.

The above represents the mode of operating a very desirable and ingenious hand-implement for sowing grass seed. It is a simple hopper with a zinc bottom perforated with holes, of equal size and distance apart; the seed is distributed by means of a flat rod on the bottom, extending from one end to the other, with notches corresponding with the holes in the zinc, and notched on each side, which keeps the seed in motion, and equally divided from one end to the other. It is worked by a small lever on the side, to which is attached a gauge by which the machine can be regulated to sow any quantity desired; it sows the seed very accurately, is not liable to get out of order, and is neat, simple and cheap. It is very useful to the farmer, for the easy, rapid and perfect performance of a labor otherwise very difficult. Price \$4.

FIRST ANNUAL REPORT OF THE SECRETARY OF THE BOARD OF AGRICULTURE.—We have examined this Report sufficiently to come to the opinion that it is the most valuable document that has yet been issued in this State, on agricultural subjects. It is written in a clear and comprehensive style, and in a phraseology so plain and direct that no

one will find difficulty in understanding all its parts. We shall improve the earliest moment to speak of it more at length and give the reader extracts from its pages. Mr. Secretary FLINT has done himself great credit in the production of this Report, and the document is an honor to the State under whose auspices it has been produced.

For the New England Farmer.

BEH-CULTURE—No. 3.

Another obstacle to bee-culture consists in the destruction of the bees by the bee-keeper.

This cruel and barbarous custom still prevails to a greater or less extent in almost every portion of the country. It necessarily prevents the legitimate and natural increase of colonies, and limits greatly the profits which might otherwise be derived from them. This has been done under the mistaken apprehension that this procedure becomes necessary in order to secure the avails of their labor. This policy is about as wise as it would be for the poultry-keeper to destroy his fowls in order to get possession of the eggs which are found within, or it reminds one of the woman who, as the Latin fable relates, had in her possession a hen, which laid daily a golden egg, and being somewhat avaricious in her tendency, killed the hen hoping to come into possession of all the golden eggs at once. The case is this, in most instances there is a destruction of bees to the value of \$5.00 in order to secure three or four dollars worth of honey. In many instances the ratio of profit is much less than this, and it is profit the backward way. This mode of procedure does not pertain to any successful system of bee-culture. How very different the result, in a series of years, when all the increase is kept alive and kept at work.

Another obstacle to bee-culture is found in the reluctance of very many persons to engage in the enterprise.

This reluctance has its origin in fear. It arises from the fact that bees are furnished with a little formidable weapon of defence, whose sharp point is much dreaded by those who are very imperfectly acquainted with them, but very little dreaded by the experienced apiarian. He knows that it is merely a weapon of defence, and not one which is used in sport. It is employed only in desperate cases, or those which are considered desperate, in which they are willing to die in the conflict. The bee when it stings leaves its sting in the wound, and the extremity of the abdomen is torn off with it, and he dies soon after. The experienced apiarian gives his bees to understand early, by very cautious and gentle management at first, that they are not to be harmed by any of his manipulations. In other words, his bees soon become accustomed to his presence and are not annoyed by it, and are not tempted to use upon him their weapons of defence. Hence his fears are at an end. He finds his bees are domesticated or rendered manageable in the same way and upon the same principle as any other creature which is subject to his control, viz: by familiarity, gently conducted at first, and often repeated, until they are no longer strangers, and there is no longer any trouble.

North Bridgewater, Mass.

THE BEE AND THE CRICKET.

BY GEORGE KENT.

A Bee, one day, in arbor lay,
Or rather was fond of humming;
Busy and blithe, taking his tithes
Of "anise, mint, and cummin."

A Cricket near was in high cheer,
Chirping in lively ditty;
The work as drudge he thought "all fudge"—
For toll he felt no pity.

'Twas summer time, each in his prime,
One bent on mirth and pleasure;
Wise to provide, the other piled
His task, for winter's treasure.

The summer's day has passed away,
And Autumn brought "Jack Frost;"
Each in his turn began to learn
Of time to count the cost.

The Bee could show of cells a row
Of well-filled sweetest honey;
The Cricket's song had brought along
No food "for love or money."

The winter came—for very shame,
The Cricket was found dodging
In any nook where he could look
For miserable lodging.

The Bee was hived, and joyous thrived,
In comfortable quarter;
Among his friends his winter spends
In pleasure, as he ought to.

Now which, think you, on sober view,
The wisest part has acted?
If you have doubt, don't find it out
As Cricket poor in fact did.

Little Pilgrim.

For the New England Farmer.

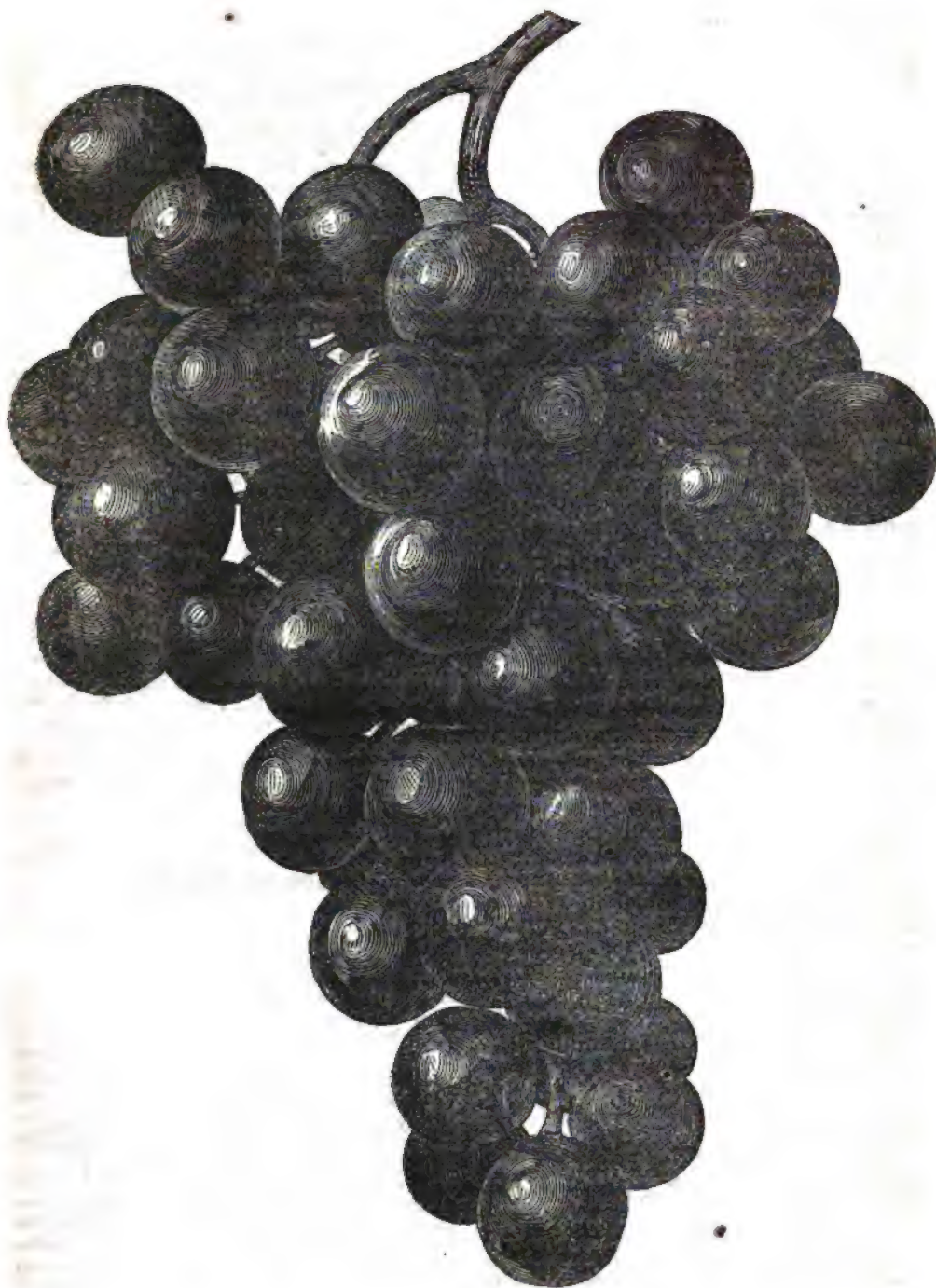
WHY DON'T THE BUTTER COME.

MR. EDITOR:—I notice the inquiry of JOSEPH H. WELLS as above, and will say we Vermonters have had similar trials in years past, but since the introduction of O. R. Fyler's Patent Butter Working Churn, those things have passed away. I am informed from good authority, that one thousand of these churns were sold to the farmers in Vermont, last season. I have seen a list of more than three hundred farmers that use them, all speaking in high terms of them, not only to churn, but to work and salt the butter; the cream is broken four times each revolution, and they will churn any cream that can be churned in short order. This churn is a new patent, only about one year and a half old, and no rights have been in the market, but we are told there will be this year. The retail price is, 4, 5, 6, 7½ dollars, and if friend Wells will send me any of the above sums, I will send one of those churns; and if he is jealous of strangers, and will give me his address, I will send him one, and if it don't do the work he wants, may only pay expenses of transportation.

HENRY HOLMES.

Grafton, Vt., Feb. 20, 1854.

WORCESTER COUNTY AGRICULTURAL SOCIETY.—This society has elected the Hon. John Brooks, of Princeton, a member of the State Board of Agriculture, in place of Harvey Dodge, Esq., of Sutton, whose term had expired.

**THE CONCORD GRAPE.**

THE CONCORD GRAPE.

Long ago impressed with the opinion that our native grape was capable of being greatly ameliorated and improved, through the seeds, Mr. E. W. Bull turned his attention to their production, and now has growing more than 2000 seedling plants, from some of which he hopes even to beat himself. It will take a long time to prove them all, but the result cannot be otherwise than important; for the natural habit of the vine once changed or broken, variation takes place in such a manner that no opinion can be formed of the product. His success in raising the Concord Grape is the best proof of this.

Mr. Bull has given a brief history of this new variety, and it will be noticed that he calls it a seedling from our native grape of the second generation. It is this; some years ago he found a chance seedling growing upon his grounds near a wall; as there are no wild grapes in the near vicinity of his place, he removed it to his garden, where he watched it with some care, and gave it good cultivation. In a year or two it produced a few bunches of fruit, ripening as early as the last part of August, and remarkably sweet and free from the foxy flavor of the wild type. The idea at once occurred to him that another generation would be a still greater improvement, and a parcel of seeds was saved for planting. His anticipations have been fully realized; the Concord Grape was the produce of these seeds. We annex Mr. Bull's account of the origin of his vine.

Concord, Mass., January, 1854.

"I send you the history of the Concord Grape, which you desired for your excellent Magazine. I have by no means said all that can be said for it, my desire being to have it come fully up to the expectations of those who may cultivate it, which I have no doubt it will.

"I believe I have before stated to you that my vine is growing on a poor sandy loam, overlaying gravel, which has not been trenched and but slightly manured; add to this, the late spring and early autumn frosts, which we are liable to in this deep valley of Concord, and the summer droughts, which are very severe with me, and I think you will conclude with me that it will be likely to keep up to its character under almost any circumstances.

"And here let me say that I have cultivated the Isabella, and many other kinds of grape, for fifteen years, without being able to ripen them in open culture, and it was this constant failure which led me, ten years since, to raise seedlings from our native grapes, in the hope that I should obtain a hardy grape that would give me a sure supply for my tables. In this I have succeeded beyond my expectations.

"The Concord Grape is a seedling, in the second generation, of our native grape, and fruited for the first time four years since, being at that time the only seedling I had raised which showed a decided improvement off the wild type.

"Notwithstanding its unfavorable position, it has proved a great grower and bearer, and very constant to its quality and season. The seedling from which the Concord was raised grew near to a Catawba, and, it is quite possible, was impregnated by it, it having the flavor of that variety. The parent vine was a good and sweet grape, large, black, and ripe the 20th of August.

"The Concord grape, as I said before, is a strong grower; the wood strong, the foliage large, thick, strongly nerved, with a woolly under-surface, and has never mildewed nor rusted under any vicissitudes of weather.

"The grape is large, frequently an inch in diameter, and the bunches handsome, shouldered, and sometimes weigh a pound. In color it is a ruddy black, covered with a dense blue bloom, the skin very thin, the juice abundant, with a sweet aromatic flavor, and it has very little pulp.

"It ripens the 10th of September. The first ripe bunch of the season was exhibited at the Massachusetts Horticultural Society's Room, on the 3d of September, 1853. The vine was neither pruned nor pinched, nor had application of any of the horticultural arts, whereby precocity and size are attained, my object being to ascertain what would be the constant habit of the vine. I suppose that its quality would be much improved in a more favorable climate, and that its superiority to the Isabella would be as apparent under such circumstances as it is here.

"The great want of the country in this latitude is a good table and wine grape, which shall also be early, hardy, and prolific. The Concord Grape fulfils these conditions, and I feel a sincere pleasure in offering it to my countrymen."

E. W. BULL."

We close our account of the Concord Grape with a more full description.

Bunch, large, long, neither compact nor loose, handsomely shouldered; *Berries*, roundish, large, three-quarters of an inch in diameter, sometimes measuring an inch; *Skin*, thin, very dark, covered with a thick blue bloom; *Flesh*, very juicy, nearly or quite free from pulp; *Flavor*, rich saccharine, and sprightly, with much of the delicious aroma of the Catawba; *Vine*, very vigorous, making strong wood; *Leaves*, very large, thick, strongly nerved, not much lobed, and woolly beneath.—*Hovey's Magazine*.

For the New England Farmer.

ERROR IN JUDGMENT.

MR. EDITOR:—It was recently urged, by an eminent gentleman, President or Vice President of one of our County Agricultural Societies I believe, that *deep plowing and thorough pulverization* was all that was necessary to be done, to prepare land for a crop;—and that no benefit whatever accrued from the application of manures. In proof of this, he said he had grown four acres of corn the last season, that yielded forty-four bushels to the acre, (fair measure,) by this manner of cultivation. I fully credit his statement. Now, sir, suppose four cords of manure had been applied to the acre, would he not probably have had *fifty per cent.* more corn; and would not his land have been in a much better condition for the production of grass, for half a dozen years to come? The putting forward such statements, by men of high standing in the community, does much harm. Under very peculiar circumstances, perhaps, a fair crop can be grown without manure; but such crops will not begin to justify the omission of its application. And whoever concludes that it will, *errs in judgment*.

Feb. 22, 1854.

IMPROVEMENT OF THE DAIRY.

LEXINGTON, JAN. 9, 1854.

To the Trustees of the Massachusetts Society for Promoting Agriculture.

GENTLEMEN—In a communication which I have just received from the Hon. E. R. Hoar, late President of the Middlesex Agricultural Society, he informs me that he had a conversation some weeks ago with one of the members of your Board, in regard to the mode in which the State Society could best promote agricultural improvements, through the agency of the County Societies; and that he then suggested, that if the Trustees of the State Society had funds which they could spare for the purpose, it might be well for them to divide the State into districts, perhaps four in number; the Western Counties one, Worcester and Norfolk one, the Southern Counties one, and Essex and Middlesex the fourth; that should the sum appropriated admit of it, \$150 should be offered in each district as premiums for the best dairy of cows, not less than six in number, which should have been owned for five months previous to the cattle show by the exhibitor, divided into three premiums of \$75, \$50, and \$25, open to competition to any person in either of the counties composing the district, and offering it in Middlesex this year, and in Essex next, or vice versa, and in like manner in each of the other districts.

In case the funds of the Society would admit of offering only \$100 to each district, in premiums of \$60, \$30 and \$20, or in two premiums of \$60 and \$40, it might be proportionably useful.

The foregoing plan presents a mode of offering premiums, which if not entirely new, has been adopted only to quite a limited extent, by any of our agricultural societies. The object is one of great importance: the advancement of that important branch of agriculture which pertains to the dairy. Hitherto the attention of agriculturists has been mainly directed to improved modes of culture, with too little regard to the dairy, or the stock best suited to its purposes. It is true that to this end the Trustees of the Massachusetts Society have for many years past directed their attention, and not without beneficial results.—That all their efforts should have been crowned with entire success could not reasonably have been expected. That they had aided in awaking the minds of farmers to a sense of the importance of greater improvement in this branch of husbandry, cannot be questioned. There is still much need of further effort to advance this department, and bring it nearer to perfection.

In the confident belief that the plan above mentioned, if carried out under proper regulations, would have a useful and beneficial effect, I beg leave to offer it for your consideration, cherishing the hope that it will not be deemed unworthy of your adoption and encouragement.

Very respectfully, your obedient servant.

SAML. CHANDLER.

BOSTON, FEBRUARY 18, 1854.

Gen. Sam'l Chandler, Lexington:

DEAR SIR—Your communication of January 9th was duly received by the Trustees of the Massachusetts Society for promoting Agriculture, and has been considered by them with all the at-

tention which was due alike to its subject and its source.

At the last meeting of the Board, the undersigned were appointed a Committee to communicate to you the conclusion to which the Trustees had come, with full powers to arrange all the details which might be necessary for carrying their views into effect.

You have done the Trustees of the State Society no more than justice in saying that "they have directed their attention for many years past to the advancement of that important part of Agriculture which pertains to the Dairy." They deem no department of husbandry more interesting or more important, and they will gladly avail themselves of the suggestions of experienced farmers, in doing whatever more may be in their power in the same directions.

With this view, and in conformity with the general ideas of yourself and Judge Hoar, they have authorized and instructed the undersigned to select four counties in different quarters of the Commonwealth, in which premiums for the best dairy cows shall be offered by the State Society during the present year, and they have appropriated the sum of six hundred dollars for the purpose. Should the result of this experiment fulfil the expectations which they are encouraged to form, it is not improbable that a similar course will be pursued in the other counties in succeeding years.

For the present, however, we are authorized to announce to you, and through you to the farmers of Middlesex, and other parts of the State, that the Agricultural Societies of Middlesex, Berkshire, Worcester and Bristol, are hereby severally empowered by the Trustees of the State Society, to offer the following premiums for the present year, and to call upon our Treasurer for their payment, viz:—

For the best dairy of cows, not less than six in number, and which shall have been owned by the exhibitor and kept within the county not less than five months previous to the Cattle Show, \$75.

For the second best do, \$50.

For the third best do, \$25.

You will observe that we have so far departed from your suggestions, as to confine the competition to the separate counties, instead of adopting the district system, which you proposed.

And we desire, also, to add, that the whole responsibility of judging as to the cattle exhibited, and of awarding the premiums, is intended to be left to the County Societies, respectively, subject only to the conditions and limitations which have been already stated.

We remain, Dear Sir,

Respectfully, your obedient servants,
ROBT. C. WINTEROP,
JAMES BROWN,
GEORGE W. LYMAN, } Committee.

DESTRUCTION OF BIRDS AT VANSITTART ISLAND.—

They generally take 2,000 to 2,200 in each pit, in the morning, at one drive; and then jumping into the hole, they set to work to pick their poor captives, pulling off only the feathers of the body, and throwing the carcasses out of the hole. This is hard work, and before the end of the season their nails often come off from the continual plucking. The feathers of 25 birds weigh only a pound,

which sells at Launceston for twopence; but Tucker, his wife, and Dick, collected during the season a whole ton, to do which they must have killed 56,000 birds. What an enormous quantity must be annually destroyed amongst the whole party! and yet they say that the flocks do not appear to diminish.—*A Sketcher's Tour Round the World.*

SEVENTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, FEB. 28.

SUBJECT:—Dairy Products, —What class of animals are best fitted for the making of butter and cheese, and what is the best mode of feeding for these purposes?

The meeting was called to order by Hon. SETH SPRAGUE, of Duxbury, and on his motion, Hon. JOHN C. GRAY, of Boston, was chosen to preside.

Mr. GRAY, on taking the chair, said he was wholly unprepared to make any elaborate remarks, on the subject of the evening's discussion. He considered it a very interesting topic, because the products of the dairy contribute largely to the sustenance of the people of this country. In forming a dairy, the first point is in selecting the stock, and in doing this he thought fine imported stock should not be overlooked, because we can mix their blood with that of our native stock. We all know of the improvement which has been obtained in our breeds of sheep and swine by means of imported animals. Of foreign breeds of cows, he mentioned the Alderneys, as possessing many desirable qualities as milkers, although not handsome animals, nor so good as some others, on account of their leanness,—and alluded to some specimens of this variety owned by the State Agricultural Society, which yield much richer milk than any other stock. Still, he thought we ought to direct our attention to selecting dairy stock from native breeds. One advantage they possess is, that they have grown up on our own soil and in our own climate, which renders them hardier. In this connection he referred to the Oakes cow, which gave 15 or 16 quarts of milk per day, 6 quarts of her milk making one quart of cream. He did not know that she had been excelled by any animal of foreign blood. In his opinion, the most rapid method of improving our stock and securing general good results is to select the finest animals to be found in our own villages. Mr. GRAY said there was one point often overlooked in the management of dairies, viz., keeping the milk of each animal separate, whereby the quality and quantity of milk which a cow yields may be ascertained and her value accurately determined. If this course be pursued, instead of turning the milk all together, it may not unlikely be found that a cow may be found in a herd which is actually unprofitable, and which it is for the interest of the farmer to get rid of.

Mr. SETH SPRAGUE said he did not own a dairy

farm, and kept but few cows. Yet he had kept both native and imported cows, and found that both varieties varied in degrees of excellence. Single cows could be selected either from the foreign or native stocks which would go far before any of their kind. He had an Ayrshire, which he obtained from the farm of Mr. WEBSTER, that gave last summer during 8 days in June, 59 lbs. of milk per day. He found in the fall, however, that the native cows held out best, and in the year round, would be found equal to imported stock. So far as his knowledge extended, it was not general for all the cows of one variety, except, perhaps, the Alderney, to be superior milkers. A gentleman in his immediate neighborhood has a full-blooded Ayrshire, which he obtained from the State Society, from which he gets but very little milk. Still, there is probably a larger proportion of good animals among foreign stock than in native stock. The great question is, where shall we get a race of good milkers? The Oakes cow, which is so celebrated, has no progeny which equals her, and this is found to be the case with all extraordinary milkers.

Mr. Brooks, of Princeton, remarked that there was a great diversity of opinion in regard to which were the best breeds of dairy stock, and for that matter he felt unsettled in his own mind. It has taken sixty or seventy years in England for them to raise their pet breeds, and it will take us as long as that to raise ours. The speaker who preceded him (Mr. SPRAGUE) considered foreign stock decidedly the best, but he could not agree with him. Generally, he did not know as they did any better than other races. The foreign cows yield extraordinary quantities of milk only in exceptional cases, and that cow which gives the most milk is not consequently the best cow, for there is a great difference in the amount of butter which the milk from different cows will make. Cows, too, which yield largely of milk, eat a large amount of food. We need a race of cows which shall be good for their beef and hides, as well as for their milk. The Alderney cow is a lean animal, and her hide is thin and unsubstantial. These considerations should be taken into account in deciding the value of an animal. We want a race which shall combine in the greatest perfection, milk, beef and shoe-leather. He thought there was as much in feeding as in breeding cattle. He had some doubts whether it was not best, on the whole, to keep cattle poorly during the winter; get as much bone as possible, and put on the muscle when we get cheap pasturage. At any rate he was trying the experiment this winter with his cattle. It is a pretty nice question. He thought there was a doubt whether Ayrshire stock would succeed as well in this country as had been expected—but only a doubt, as there is yet no proof. They have not got acclimated. The Durham give more cheese,

and the Devons and Ayrshire more butter, in proportion, and it is a question whether the cow that gives more cheese and less butter, is not just as valuable as the one which gives the more butter and less cheese. Ayrshire stock, he thought, would make the best workers, as he had observed that they came up from the pastures cooler than the other stock, and have evidently better wind, which point was illustrated in a bull which he walked behind a quick stepping horse for several miles, the animal, after being in the barn ten minutes, showing no signs of his journey. He had had more experience with this than other foreign breeds. He had experimented with native stock, but found that the Ayrshire turned out best: but yet he would not argue from this that the native cannot be improved, but only that it is not so pure. They can be improved, but a great difficulty is experienced in regard to crosses—there is no certainty about them. In forming a dairy, *education* is as essential to the cow, as in qualifying the human mind for its duties. Cows should be treated kindly, fed well, and kept in perfect health from birth. So with working cattle, they should be brought up in the yoke, and learned to work for a living.

Mr. Cook, of Scituate, inquired how it happened that a cow might give more cheese than butter? He conceived that the same food was required for both.

Mr. Brooks replied that caseine and oil, the former a chief ingredient in cheese and the latter in butter, required different nutrition for the cow to produce them, as for instance, if he wished to obtain a large quantity of milk, he should feed his cows on succulent matter, such as turnips, carrots, and the like; but if he desired butter, he would give them Indian meal, or similar food.

Mr. BUCKMINSTER alluded to the necessity of having a *race* of good milkers. We ought to give premiums to that man who endeavors to get up a good breed, not to the person who rides about the country and selects the best animals he can find. He did not know why we might not have a race of good animals. In rearing horses we depend on the blood, and we could also depend on it in raising cows, if we would only give the matter proper attention, and select the best animals. He knew of an imported cow, a very handsome animal, costing \$400, which was of little value for milk, and which he believed would never bear a calf. Mr. CUSHING, of Watertown, sent a man abroad some ten or a dozen years ago, to select some Durhams, but he had become dissatisfied with them. He probably sent a man who did not understand selecting good cattle, and got imposed upon. Mr. B. gave an account of some stock derived from a herd of North Devons imported into Baltimore many years ago. He had six heifers from this stock, from the milk of two of which he

obtained in a little less than 12 quarts, three pounds of butter. Some of this milk put into a tube eight inches long, yielded two inches of cream. The milk from all his cows of this breed was equally rich. He thought it would prove a good race for milk. It is superior in form and flesh to the Alderney.

Mr. Brooks expressed the belief that many cows could be picked out which would do just as well as the cases just cited.

The Chairman referred briefly to the best food for dairy stock. Fresh grass, of course, is the best, but as it cannot always be had, a substitute is needed; and in his opinion, cornstalks raised in drills was the best for fodder. In winter, carrots he conceived to be the best.

Mr. DICKINSON said his farm embraced a good deal of pine plain land, and in summer the feed of the cattle often comes short. A year or two ago he accidentally discovered that the long necked summer squash was a most excellent substitute for pasture feed in times of drought. They produce very rich milk, grow rapidly, yield handsomely, and hold on until October. He had two cows, and usually planted twenty hills of squashes, which he broke off green and fed out to his cows at the rate of four bushels per day,—two in the morning and two at night. Others had followed his example, and were greatly pleased with the result.

Mr. SPRAGUE referred to Mr. Brooks's statement of keeping cattle on short feed, in order to make the bones grow, and said he would like to see that gentleman's cattle and his barn. He could remember when it was the practice to keep cattle much out of doors in winter, and feed them on salt hay, some contending that it was necessary, in order to make them hardy; but they came out poor enough in the spring. In his opinion, if we want good cattle, we must feed them well, and keep them from the cold. All good authorities in stock raising agree on these points.

Mr. Brooks replied that he merely expressed a doubt whether such a system might not be a good one. He thought it a question whether, when feed is as dear as it is generally with us in winter, it is not best to let the flesh fall off, and put it on again when feed is cheap. Not to starve the stock, but to keep them in comfortable condition. He considered it a question whether high or low feeding was the most judicious, and for that reason he was trying the experiment.

Mr. SHELDON, of Wilmington, remarked in regard to feeding stock, young cattle might be fed too highly, if it was intended to keep them to old age; but he thought the failure in nine times out of ten was in not feeding them high enough. As to breeds of stock, in looking back to the oxen he had owned, and noticing those he considered the smartest, he found that the Ayrshires were the

best on the foot, while the toughest resembled North Devons. He thought North Devons and Ayrshires might be selected through the country, from which a good stock might be reared in a very few years. He did not think that imported cattle would do so well as the second, third or fourth generation of their descendants.

Mr. RUSSELL, of Pittsfield, was of the opinion that it would require a long period to get up a race, and referred to an improved breed of sheep which had been in the course of breeding by a gentleman in Germany since 1811. They now surpass anything in this country for wool. He thought that failures to secure good stock were often produced by the sires, and should prefer those which come from good milking stock. Until a good race of milkers is produced, he thought the best course to be pursued, was to purchase native stock, selecting the best animals and rejecting all which did not prove good. He was now pursuing this plan, and thought that in eight or ten years he should have a better dairy stock than he has ever had.

GARGET IN COWS.

Messrs. Editors:—At the solicitation of a friend, who has saved a valuable cow from the hands of the butcher, I am induced to make known through your columns a remedy for the *Garget*. Some years since, I met with a fine imported Durham cow, on the way to the butcher, the owner parting with her in consequence of her being afflicted with the garget. The owner had tried all the usual modes of eradicating the disease, after which he put her under charge of a distinguished Veterinarian, who, after a six-months' attendance, discharged her as incurable.

Deeming her a good subject for a treatment with iodine, and not knowing whether it had been used in the case, I purchased her at what she was worth for beef. At that time she gave but a few drops of milk at a time from one teat, the other three having ceased to yield any—the udder and teats were swollen and hard. I determined to make use of iodine in the form of hydriodate of potash, being solvent in water, and if it failed to exhibit its effects on the system, I would resort to an ointment, (20 grs. iodine to 1 oz. hog's lard,) applied externally, to the udder and teats. I commenced by giving 10 grs. of hyd. potash in a table spoonful of water, three times a day, mixed in a mash of shorts or meal; and though the dose was unusually small for a cow, still as it was giving unmistakable signs of effect,* I did not increase the dose. In seven days she gave milk freely from each teat, and in three weeks she was discharged as cured. The result in the foregoing case was so favorable, that I advised my neighbors, who had cows afflicted with the garget, to make trial of the same remedy. I have known of its trial in at least forty cases, and in every one the cure has been effected with

* Hydriodate of Potash passes quickly into the secretions, especially the urine. It may be detected in the latter by first adding to the cold secretion a portion of starch, and then a few drops of nitric acid, when a blue color will be produced.

even the above-named small dose. A larger quantity could be used at a dose with safety.

Any one acquainted with the effect of iodine on the human system, knows its tendency to produce an absorption of the mammae. Dr. R. Coats, Philadelphia, reports a case in the "Medical Examiner," of the complete absorption of the female breast from iodine; but the mammae recovered their original developments after the lapse of a year. Iodine is principally employed in diseases of the absorbents and glandular systems. (See U. S. Dispensatory.)

Hydriodate of potash can be procured of any apothecary, and dissolved so as to allow 10 grs. to each spoonful of water, increasing the doses till it gives effect on testing the urine.

Dedham, 1854.

EBEN WIGHT.
Boston Cultivator.

For the New England Farmer.

IMPROVED SUPERPHOSPHATE OF LIME

Mr. Editor:—Having during the winter of 1851-52, noticed several articles extolling very highly a fertilizing compound under the above title, and being in want of a concentrated manure, I was induced to make a trial of the same, in order to test its fertilizing qualities, believing that if it possessed one-half the virtues which it is claimed to be endowed with, it would be just the thing I wanted. I accordingly sent for, and obtained a bag of it.

Well, my first operation was in the garden, where I applied it freely to all sorts of vegetables, from the aristocratic corn-stalk down to the humble squash-vine, skipping alternate rows and hills, but never could perceive any difference in the growth.

Sometime in July I inverted a piece of sod which I sowed to turnips, and topdressed with the compound, omitting a strip across the centre of the piece, and although superphosphate of lime is known to be a favorite manure for turnips, there could not in this case be any difference discerned throughout the season, either in quantity or quality, between that portion which was topdressed, and that which was not. It is also said to be an excellent topdressing for grass lands; accordingly, after haying, I selected a piece of land, warm and dry, but so reduced in fertility as scarcely to pay for swinging the scythe over it. Two square rods were marked off, on one of which I sowed ashes at the rate of 40 bushels to the acre; and on the other sowed compound (for in truth I know not what else to call it) at just double the cost. The past season the ashed rod was marked by a luxuriant growth of clover and grass; the other by four stakes—and nothing more.

Notwithstanding my experiments thus far were attended with results so unfavorable, I resolved to make another trial the following season on different soils and crops. Accordingly I applied it at the first hoeing to my corn and potatoes on alternate rows; and afterwards to common turnips, ruta bagas, and carrots, on reclaimed meadow land, with no better results than the previous season. Now I am driven to the conclusion that my soil must be very ungrateful, or, that the manufacturers must be deficient in conscientious scruples. The use of portable, or concentrated man-

ures, will no doubt add materially to the agricultural productions of the country. And no doubt many instances may be singled out where they have proved a profitable individual investment. But the existing high prices, together with the risk of getting a worthless article, renders it extremely questionable whether it will not, in the majority of cases, prove to be a whistle too dearly paid for.

J. H. S.

Colebrook, Ct., Feb. 15, 1854.

THE SEASONS.

FROM THE GERMAN.

Hay and corn and buds and flowers,
Snow and ice and fruit and wine,—
Suns and Seasons, sleets and showers,
Bring, in turn, these gifts divine.
Spring blows, Summer glows,
Autumn reaps, Winter keeps;
Spring prepares, Summer provides,
Autumn hoards, and Winter hides.
Come, then, friends, their praises sound:
Summer, Autumn, Winter, Spring,
As they run their yearly round,
Each in turn with gladness sing!
Time drops blessings as he flies—
Time makes ripe and Time makes wise.

For the New England Farmer.

FARMING IN NEW ENGLAND—No. 3.

Another serious obstacle to successful farming in New England, is, a *servile imitation of the ways of our fathers*. Reverence for antiquity is generally a virtue, but that unreflecting imitation of faults and excellencies of our ancestors, is neither consistent with good sense, self-respect, nor progressive improvement. In the vicinity of our cities and larger towns, we see much less of the evil to which I refer, than in the country. But we need not go very far into the interior, even of Massachusetts, before we shall find melancholy evidence that farming is still conducted very much as it was a hundred years ago. What our fathers did from necessity, we continue from habit. Though the hum of industry is heard around every water-fall, and smiling villages have sprung up, as it were by enchantment, on those rocky and forbidding sites which our fathers thought were "made only to hold the world together," the old farms in the vicinity look as they did half a century since, only a little more desolate from year to year. The house is as innocent of paint as it was the day it was "finished." On one side of it, the builder was just three clapboards short, and they have never been supplied, and the lining boards have always been, and still are, visible to every passer by. Two or three panes of glass were not set in one of the windows, and their places, together with those which "the children" have created in other parts of the mansion, are filled with old hats and worn-out comforters. The brackets which were used for shingling the roof, stand there still, to answer the treble purpose of exciting the mirth of the traveller, awakening the mortification of every person of taste, and of saving the carpenter the trouble, (if perchance they do not become too rotten,) of putting on others, when the house is shingled again. Instead of a neat and easy-working pump, the old, crazy well-sweep hangs there yet, creaking in the wind, supported

by a crotch leaning at an angle of forty-five degrees with the horizon, and creating an antagonistic combination of forces, which works in all possible directions but the right one:—the whole concern seeming to have been contrived for the especial purpose of taxing to the uttermost the strength and patience of the "good woman," and of setting at defiance every principle in mechanics, and all possibility of drawing water. One consolation, however, is left to the mistress of the house—the bucket is so old and leaky, though she fills it full at the bottom of the well some forty feet deep, by the time it reaches the curb, half of the water has run out, to the sensible relief of her *present*, if not of her *future*, muscular exertions.

A stream of liquid manure runs from the barn-yard into the road, furnishing ammonia *gratis* to all who pass by the premises, but making lean pork for the owner next winter. His cows would be alarmed at the sight of a turnip or a carrot, and the strong probability is, that it will take more than "four quarts of their milk to make a pound of butter." Like the editor of one of our agricultural papers, and as his own father did before him, he throws his manure from the lean-to out into the open air, that it may be thoroughly washed and cleansed and dried, before he applies it to his delicate acres. His barn has no cellar, his pigs no shelter. He raises corn, or rather stalks, on the same land, for four successive years. His meadow is not drained, nor his upland favored with a coating of pulverized muck. His farm is growing poorer year by year, and he would gladly sell it and "move to the West." He wonders why he does not get along as well as his neighbor Thrifty, whose buildings are painted, whose barns and storehouses are full, and whose cattle cover the surrounding hills. He works as hard as his neighbor, but after all, things will go the wrong way with him. He is short of money and wishes to borrow, while Thrifty always has some to let—to every body but him.

Now, there is neither poetry nor caricature in this representation, but simple sober truth; and if it should chance to fall under the notice of any tiller of the soil, who is conscious that he sat for the picture here sketched, I would in all seriousness ask him, whether his want of success is not to be attributed to his following the *beaten track of his fathers*? Do you not cultivate the acres they did, in *precisely their way*? Have you taken the pains to inform yourself, whether some at least of the alleged improvements in farming of the present day, are not real, substantial, improvements, and worthy of your imitation and adoption? Do you take, pay for, "read and inwardly digest" the "*New England Farmer*," and keep yourself well posted up, in regard to the progress which agriculture has made within the last twenty years?

Waltham, Feb., 1854.

D. C.

REMARKS.—If we had not seen, with our own eyes, the very evils which our correspondent names, we should certainly feel inclined to consider his assertions as extravagant. But it is scarcely a week since we saw a farmer's barn-yard, and that, too, where all the droppings are thrown into the yard, literally swept by the dissolving snows, and not only "a stream of liquid manure," but many streams, coursing their joyful way across the yard

to the brook below! With the merchant, a case, parallel with this wastefulness and folly of the farmer, would be to provide his year's stock of molasses, pay for it, and then draw the spigots, and suffer it to run into the gutters and streets. Every observing traveller must have noticed the instances of shiftlessness which are recited above. That there has been great improvement, "D. O." will allow; but his argument is, that more is demanded, and that because it is not made, is one principal cause of the want of success.

SOLID AND LIQUID EXCREMENTS OF ANIMALS.

It has frequently been suggested by writers on agriculture, that the liquid excrements of animals are a most energetic and efficient fertilizer; but very few, if any, have been at any trouble to inform their readers of what they are composed. Chemical analyses have been made of almost all the articles used as agents of fertility, and we now submit the following tabular exhibits, showing the components of five of these, viz: cow dung, horse dung, cow urine, horse urine and human urine.

Cow dung—the animal being fed on straw, leaves, hay and potatoes, contained, in 100 parts, when fresh—

2.2 bile, in a state of alteration.
8.8 mucous, &c.
14.1 non-digested (crude) vegetable remains and ashes.
75.4 water.

HAIDLEN's analysis of the ashes, gives six per cent. They were composed of the following ingredients:—

Phosphate of lime.....	12.9
Do. magnesia.....	10.0
Perphosphate of iron.....	5.5
Carbonate of potass.....	1.5
Sulphate of lime.....	3.1
Silicic acid.....	63.7
Loss.....	3
	100.0

Of horse manure, (the animal being fed on oats, straw and hay,) 100 parts contained:—

Biliary matter, and coloring matter in a state of alteration.....	2.7
Mucous, (crude,) &c. &c.....	6.3
Non-digested vegetable remains and ashes.....	20.2
Water.....	69.8
	100.0

The ashes was six per cent. Their constitution, according to the analyses of JACKSON, was as follows:—

Phosphate of lime.....	5.
Carbonate of lime.....	18.75
Phosphate of magnesia.....	36.25
Water.....	40.
	100.00

Of horse urine, according to VAUQUELIN, 100 parts contained,

Carbonate of lime.....	1.1
Do. soda.....	0.3
Hippurate of soda.....	2.4
Hydrochlorate of potass.....	0.9
Urea.....	0.7
Water.....	94.6
	100.0

Cow's urine, analyzed by BRANDE, gave hydrochlorate of

Potass. and ammonia.....	1.5
Sulphate of potass.....	0.6
Carbonate of potass.....	0.4
Phosphate of lime.....	0.3
Urea.....	0.4
Water.....	96.8
	100.0

Human, analyzed by BERZELIUS, gave in 1000 parts,

Urea.....	30.10
Lactic acid.....	17.14
Uric acid.....	1.00
Mucous.....	0.32
Sulphate of potass.....	37.61
Do. soda.....	0.00
Phosphate of soda.....	3.16
Do. ammonia.....	2.94
Hydrochlorate of soda.....	1.65
Do. ammonia.....	4.45
Phosphate of magnesia and lime.....	1.50
Silicic acid.....	1.00
Water.....	933.00
	1000.00

In consequence of the quantity of sulphate of soda not being carried out, the figures in the last analysis appear imperfect. The table is given, as published, however, and will be sufficient, we presume, to demonstrate most conclusively that urine is much too valuable an article to be neglected, or suffered to run to waste. By taking proper measures for economizing it, and mixing it with muck, mould, rotten wood, or indeed, with any substance of an absorbent nature, and applying it to our crops, we shall find that it will always be productive of eminently beneficial results. It is not, however, judicious to apply it in its crude state, a certain degree of fermentation being essential to the development of its fructifying energies which depend upon the putrefactive process. In irrigation, both urine and soap suds possess great value. Both articles contain the food of plants in a state of solution, and therefore in a condition to be immediately appropriated by the vegetation to which they are applied.

For the New England Farmer.

HOW TO MAKE THE BUTTER COME.

MR. EDITOR:—In the last week's *Farmer* the question is asked, "why don't the butter come?" I would answer that question by stating the plan I have adopted to make it come quick. The cream is put into tin pans, and placed on the stove with a moderate fire; I then commence stirring it slowly in order to have it warmed alike in all parts of the pan. As soon as it feels neither hot, nor cold, by putting in the finger, pour into the churn. In from 5 to 15 minutes the butter will come. I have tried this plan for the last two winters and it has not failed once to bring the butter in the above time.

I have tried, or seen tried, almost all kinds of churns, from the old dash and barrel, of bye gone days, down to the late "double acting atmospheric" humbug, and am satisfied in my own mind that there is no great difference in most of them, so far as the labor of churning is concerned.

J. G. GRIGGS.

Centre Rutland, Vt., 1854.

IMPROVEMENT OF THE DAIRY.

The attention of the reader is called to a letter from the President of the Middlesex County Agricultural Society to the Trustees of the Massachusetts Society for promoting Agriculture, and the reply of the Trustees. The proposition, it will be seen, has been responded to by the Massachusetts Society with that efficient liberality by which it has always been distinguished whenever satisfied that the use of its funds would promote the interests of Massachusetts farmers. The movement is well-timed, and in the right direction. The premiums are sufficiently large to attract and justify the attention of our most skilful and intelligent dairymen, and the result must be highly beneficial. We cannot refrain from expressing our obligations to the mover of this experiment, and to the Trustees, for their appreciation of its merits, and liberality in carrying it out.

For the New England Farmer.

MY COUNTRY HOME.

"The country for my home—the city for my visiting place," said I in my girlhood. "Poh!" said my farmer uncle, "what do you know about the country, whose only experience has been the few short weeks of a summer's vacation?" But I fancied that as I had the taste to appreciate the beauties of country life, so I had sense enough to get along with its trials,—indeed, methought, after all, these could not be so very much greater than those pertaining to city life.

After awhile I spent a winter in the country. Now surely upon such experience had I not a right to my say about country life? But my more thoughtful aunt would not allow that I yet had the right or rather the ability to choose impartially. "It may be very nice," said she, to visit in the country free from care, with nought to do but read and write from morn till night, or walk or ride or visit at the convenience and pleasure of your own will; wait till you have lived in the country and kept house there." Now the country has been my home for a whole six months—not summer months all, either. I've had a cow and a pig and some chickens. If this isn't country experience, I know muddy carpets and a mud bespattered husband is! Have I not yet reached the point of impartial judgment—the right to my own wise opinion, unfettered by all these ifs and ands and buts—though they do chance to bear the weight and authority of emanating from older and wiser heads than mine? Perhaps my good friends will say "O, your six months has been only a sort of village country life. Wait till you have made your home—that farm which is now in all its pristine beauty—just as the Red Man left it."

The woodman's axe and the brush scythe are producing quite a civilized look on that farm, I assure you. But if you choose, I will waive the question, or rather its decision, till I have had a few years' experience upon the new homestead.

An old lady, thinking I could hardly reconcile such a life with my city habits, opened her eyes in astonishment at the pleasure I expressed in prospect, "Why you don't say,—well I s'pose you

like posies, and there's plenty on 'em, I guess, up in them woods."

O, if——— and——— should see me ensconced in that little cottage, which is already modestly peeping up in the centre of the clearing, far away by the roadside, with rail fences about and plenty of stumps all around, would they denounce the taste that held me contentedly there?

I manage to find almost as much happiness in anticipation and memory as in reality. So I look into the uncertain vista of a few succeeding years. I see in front of the wee house in the grove reserved for that especial purpose, a pleasant and commodious mansion, where are gathered the many little comforts and some luxuries that tend to make home happy, and the carrying out of social hospitalities, a pleasure unalloyed by the fatigues of inconvenience. I would have a winding carriage way from the road—through smooth shaven lawns—and there should be clumps of shrubbery and ornamental shade trees. I would have a hedge row, or at least, neat fences should displace the unsightly rails. Wide spreading boughs should o'ershadow the extent of boundary along the roadside. The garden, with its vegetables and small fruits, should be such an one as only an imaginary garden could be. On the hill-side, orchards with all the improved varieties of fruits. Vines rightly trained should yield their teeming stores. Animals of the "best improved" should dot the pasture grounds. An occasional field of grain should come in by way of contrast and variety. I would have an enclosed verandah as a conservatory for exotics whose verdure and bloom would cheer the heart and charm the eye during those long winter months in our cold North West.

These are some of my dreams, rough sketched, that haunt my thoughts when in moments of musing reverie, I apportion and adorn those acres so rich in soil, so beautiful in location.

This is my home, as my hope and fancy paint it. What a sweet spot to rear my children. To dwell thus in the midst of natural beauty will surely tend to make them good if not wise.

In whatever portion of the world their after lot may place them, will they not ever treasure the sweet recollection of home? Round that little word will not bright thoughts ever cluster? "A thing of beauty is a joy forever;" then it is no trifling thing to rear a beautiful home, if by this means one inextinguishable ray of joy lights the hearts of our children through life. Our labor then will not be in vain. "Remembered joys are never past." Then though their whole after lives be darkened by some incurable sorrow or affliction, how fondly will they cling to these remembrances.

I know the difference between bright and pleasant memories, and those that are sombre and sad. Nought but the former would I bequeath to my little ones. If all pleasure in their after life should be taken from them, there would be that in their past, which would be to them sweet and never failing sources of pleasure. For this I would have them a home of beauty, not of splendor. If humble, it should yet possess attractions, which loving in their childhood, they should enjoy through life. Some poet has sung, "A sorrow's crown of sorrow is remembering happier things." It may be so with regard to some kinds of happiness but hardly true, I think, of the remembered happiness of a pleasant home and childhood.

"But," says one, "there's many a slip 'twixt the cup and lip," and you may never possess those good things of which you so fondly dream. It may be so. It is not impossible that all our sweet anticipations should be crushed. Everything is uncertain, but not for this should we cease working and hoping. If life and health are spared and no untoward events occur, we *must* we *shall*, the most of them. Thus strong is my hope.

I know the bounding, gleeful joyousness of my youth has passed. I may never again romp with the same childish delight through the woods—up the hills and along the valleys. Ah! well I remember how gladly I hailed those vacations. Once escaped from the decorous bearing seemly for a city miss, I was like an uncaged bird, wild in my unchained freedom. My strength might now prove but weakness should I attempt those long rambles, when I climbed the heights—descended the ravines in search of those beautiful things, the wild flowers. But other forms are growing up to take my place in these woodland rambles, and other hands may cull the "posies" of our bright prairie-land. While Mamma must consent to be content with the more passive enjoyments of country life and nature's beauties, and enjoy them through her children. ELARK.

Waukesha, Wis.

REMARKS.—Thanks to "Elsie" for her favor. "Short sketches of life in the West," or "Incidents on the Prairies," will prove interesting to our readers. We hope to hear from you again.

MILK AND BUTTER COWS.

A statement is published, verified by a responsible name, of the product of milk and butter, of 14 Ayrshire cows, the property of EDWARD M. SHEPARD, of St. Lawrence county, New York, which is worthy of being laid before our readers. It is, briefly, as follows:

Mr. Shepard, had 14 cows, Ayrshires and their crosses on natives, half-bloods, six heifers *milking for the first time*—time, the third week in June—feed, grass only.

Allowing one cow for family use, and deducting 40 per cent. from heifers, and his trial stood thus:

Cows.....	8
Heifers 6, reduced to cows, is.....	3.6
	11.6
Deduct one cow for family, is cows.....	10.6

The product for the week was 12 lbs. 12 oz. per cow, the first week in July, feed grass only, and much affected by drought, he milked twenty, eight of which were heifers, milking for the first season, and this trial stood thus:

12 cows, less one for family, is.....	11.
8 heifers, 40 per cent. off is.....	4.8
Full cows.....	15.8

The product for the week, per cow, was 14 lbs. 13 oz. and a fraction over.

But, lest you might think my allowance for heifers too much, which, however, is considered a just allowance by the dairymen of this country, the result of the last trial, without any deduction for their being heifers, was 12 pounds 5 oz. and a fraction per head, for the week.

SONG FOR THE SEASONS.

BY HARRY CORNWALL.

When the merry lark doth gild
With his song the summer hours;
And their nests the swallows build
In the roofs and tops of towers;
And the golden gorse-flower burns
All about the waste;
And the maiden May returns
With a pretty haste;
Then how merry are the times!
The Summer times! the Spring times?
Now, from off his ashen stone,
The chilly midnight cricket crieth;
And all merry birds are flown;
And our dream of pleasure dieth;
Now, the once blue laughing sky
Fadens into grey;
And the frozen rivers sigh,
Pining all away!
Now, how solemn are the times!
The Winter times! the Night times!

Yet, be merry; all around
Is through one vast change revolving;
Even night, who lately frown'd,
Is in silver dawn dissolving:
Earth will burst her fetters strange,
And in spring grow free:
All things in the world will change,
Save—my love for thee!
Sing then, hopeful are the times!
Winter, Summer, Spring times!

BUFFALOES.

A member of Governor STEVENS' northern route exploring party, in a long communication to the *St. Louis Republican*, written from the head of Yellow Stone, relates the following among many other "sights and incidents" of the party thus far:

On Sunday, after a march of some ten miles, the buffaloes were reached. They were before and on each side of the train. For miles ahead it seemed one vast drove yard. They were estimated by some as high as 500,000—200,000 is considered a very low estimate. Drawing up the train at our usual halt at noon, a large herd were about half a mile ahead. The hunters, six in number, were immediately despatched, well mounted, on spare horses reserved for that especial purpose, and the whole train had an opportunity of witnessing a buffalo hunt. The hunters dashed in among the herd, picked out the fattest of the cows, and then separating the selected ones from the herd, soon despatched them. In less than an hour the wagons were sent but a small distance from the route to receive the choicest pieces of the buffalo.

In the next two days' march the hunters were kept some distance ahead, to keep off the buffaloes; it was the only way the safe passage of the train could be insured through the sea of flesh. The pack mules and spare animals following on in the train, too numerous to be separately led, were hard to control; and despite every precaution and care, one horse and four mules were lost, they getting mingled with a herd of buffaloes. Every effort was made to reclaim them—hours spent in their attempted recovery. The efforts were entirely useless.

SPIRIT OF THE AGRICULTURAL PRESS.

HORTICULTURE.

"The taste for Horticultural pursuits," says *Hovey's Magazine*, "is steadily becoming more extended. Wherever a town or village is settled, even in the remotest sections of our wide country, there may be found neat gardens, filled with the better varieties of our fruits. * * * The great West, where, a few years since, native seedling apples comprised the principal fruit, now claims only a secondary place in the variety of pears, peaches, cherries, &c."

There are, comparatively, few farms now, that are entirely without some of the better sorts of fruit. All, we trust, have gone beyond that point, when an abundance of the common cider apples satisfied their wants. Most farmers now have a small variety, at least, of the apples suited to the different seasons, and so coming into perfection as to afford a supply from September to April.—And they are not willing to stop with this, but carefully cultivate the plum, peach, pear, and some of the smaller fruits, the strawberry, currant, raspberry, &c. The cultivation of these soon begets a stronger love for the garden, and thus this delightful appanage of the house has found favor with the farmer, and given a new aspect to rural scenery. The quarter, half, or whole acre, is now often seen filled with choice fruits and vegetables and tended with considerable skill and care.

FLORICULTURE.

The same writer says, "if the taste for the culture of plants and flowers has not kept pace with that for fruits, it has still made a good advance, especially in the out-door or hardy department of ornamental gardening."

House plants and flower gardens are evidences of taste and refinement. The sweet-scented geranium, or a delicate rose, would hardly be expected in the parlor of an irascible woman, or the daffodil, coreopsis, or mourning bride, in the garden of a rude, ignorant and unfeeling man. But if placed there by some friendly hand, they would gradually root out the perverse spirit and kindle in its place sentiments of good-will, affection and love. Children, reared among flowers, will feel their kindly influences. That ferocity among boys to torment dogs, kill cats and destroy birds, will be tempered into a healthful principle of self-preservation, by engaging in the cultivation of beautiful flowers.

An encouraging feature among the farms is the prevalence of more, and better gardens, in which each has its well-defined limits devoted to a variety of annual and perennial flowers. Here the mother and her children control the operations; and while they cultivate the delicate plants spring-

ing into life and beauty around them, they also cultivate the graces which shall adorn them more than all that wealth can give. In their garden conversations, too, they excite such a love in each other for the beautiful and good, that their whole lives are tempered by the sweet influences of these fresh and impressive employments upon their ductile hearts. So, cultivate the flowers.

WHAT SHOULD THE STATE DO FOR FARMERS?

Such is the significant question asked by the *Farmer's Companion*, published at Detroit. "If the government," it says, "by establishing an agricultural school, can make us better farmers, so that every acre of land yields annually ten dollars, where now it yields five, then we hold it to be the duty of government to establish that school—with our own money, remember—for all the government's money comes out of our pockets." It then adds, "in 1850, we had 2,000,000 of acres under cultivation in this State. Who doubts, that if the farmers were as well instructed in their business as the engineer is in his, we could not just as easily make our farms yield at the least \$2 an acre more, yearly! * * * It has been thoroughly proved in Europe, and well proved in America, that *thorough drainage*, on the average, adds *thirty per cent.* to the crops. In 1850, we raised 5,000 000 bushels of wheat; drained land would have given us 7,500,000 bushels, equal to as many dollars. But as individuals we have not the capital to drain our lands." We cannot here, give the reasons for these opinions, but entirely agree with the *Companion*, that the government of every State may do something for its agriculture which will shortly come back to its treasury in a three or four-fold degree.

MANURE, (not sermons,) IN THE STONES.

The *Farmer and Artizan*, published at Portland, Me., MARCIAN SEAVY, editor, contains an address by Doct. N. T. TRUE, before the Cumberland County Agricultural Society, which is full of striking truths. It says:—

"Almost any granite quarry contains all the mineral elements, and nearly all in the right proportion, to form a good soil. Could, then, a piece of granite be completely crushed and pulverized, it would, at once, form the mineral basis of a good soil; and this really is the manner in which your soils were originally formed. But it is necessary that the elements which compose such a soil be in a perfectly soluble condition before they can become food for plants. This is effected by the influence of one element on another."

HOW NATURE RENOVATES A WORN OUT SOIL.

"In this connection, let me call your attention to one of the processes that nature adopts to renovate a worn out soil; she makes use of a rotation of crops. Suppose we visit the plains in Brunswick, where there is but little potash in the soil. Well, what is going on there? Nature has planned there during the present century, at least, the

pitch pine (*Pinus rigida*) for the unmistakable purpose of renovating that "miserable soil"—a hard case, gentlemen, but nevertheless true. These trees send down their roots in some instances, it is said, to the depth of seventeen feet, and bring to the surface the potash and other elements. But does this tree deposit its potash in its wood or bark? By no means—the wood of the pine requires but little potash, but it carries it *through* the tree into the leaves, which require a large proportion of that element. These leaves fall every year and assist by annual acquisitions in the formation of a new soil, so that even on the unpromising sand plains of Brunswick and other towns, you will find nature slowly, but surely at work, forming a suitable soil for some other crop, which in the lapse of ages she may see fit to introduce."

HOW DEEP SHALL WE PLOW?

"Let me ask how many of you have ever made trial of the subsoil plow? Or, are you willing to suffer the subsoil to remain as hard as granite for fear your manures will be wasted? A great mistake, gentlemen. Manure cannot descend out of the reach of roots of plants in any soil worth the cultivation. Plow deep and manure accordingly, and you double the number of acres you cultivate.

"I see the countenance of an intelligent and successful farmer kindling up, and seeming to say, 'I plow deep, sir.' Right, my friend; go home, and if the subsoil be anything besides a pure, coarse gravel, or sand, plow deeper yet. Much of the land in this county will bear plowing to the depth of eighteen inches. Exceptions, I am aware, exist, but they are much fewer than is generally supposed. If you expect to obtain a crop with a very little manure, then plow shallow, manure shallow, sow shallow, and reap shallow.

Some of the happiest and most independent men in the land, or in the world, are to be found in New England, who possess but a few acres of land, yet who keep it in a high state of cultivation. It costs such a man not half so much for seed, for labor or for taxes, as he who half cultivates double the number of acres. By deep plowing you bring within reach of plants a fresh soil which has not been exhausted of its potash, lime and other elements which are readily soluble, and easily convertible into food for plants."

WHERE SHALL WE COMMENCE IMPROVEMENTS?

The "*Soil of the South*" Columbus, Ga., in its salutations to its readers at the opening of the year, has some excellent words which are applicable in this region. It says:—"The wear and tear of the last quarter of a century, upon the new lands of the south, has in it a lesson of no doubtful import. What will be the effects of a continuance of the same operations for a like period to come, needs no prophetic skill to tell. Need we persist in error, just for the privilege of having that many more steps to retrace, or shall we resolve now to commence the reformation? * * * *It will have to be made.* We cannot much longer give up all the time and labor, to cultivate and gather the crop; but to improve the land must claim a fair share of attention also."

SHORT CROPS IN ENGLAND.

The *Farmer's Magazine*, (England,) for December, estimates the wheat crop in the United Kingdom at about *two-thirds* of an average. To cover this deficiency some *thirty-two millions of bushels* will be required, which added to the average imports of good seasons, for the consumption of 1854, will probably amount to the enormous quantity of *seventy millions of bushels!* Our farmers should not entertain the fear, for a moment, that the market is to be overstocked in any of the staple crops. On the contrary, there never has been a time when their prospects of a fair reward for their labors were better.

HOW TO BEGIN THE NEW YEAR..

The *American Farmer*, published at Baltimore, in its budget of suggestions at the opening of the New Year, says:—"In commencing a new year, you should so arrange your system of farming, as never to be at a loss throughout the season for what next you are to do. Make it a point of duty not to cultivate more land than you can cultivate well. Let not the ambition of being considered a large cultivator induce you to overcrop yourself. One acre well manured, well plowed, harrowed, and rolled, if well tended afterwards, will produce more than three where these things have been omitted. The more noble ambition for agriculturists, is that which excites the desire not only of being considered, but of being in reality a good culturist, of so cultivating his land as that, while it yields abundant harvests, it may be gradually improving in its productive capacities."

But we must pause here, though having referred to a few only of the valuable journals upon our table. They abound in highly scientific and instructive articles, as well as the practical details of the art. We regret our inability, from want of space, to copy more frequently and extensively from the pages so ably and usefully filled, and from which we are daily instructed.

The careful reader will notice by the above extracts that there is great activity of mind among the farmers; because, if it is found in the *agricultural press*, it is the *farmer himself* who incites it by his increased intelligence and interest in the occupation.

HOW I SAVED MY CURRANT BUSHES.

On returning home after an absence of a couple of years, some four years since, I found my currant bushes, which were in rows on the outside of my garden, overgrown with witch-grass, and was informed by my better half that she could not welcome my return with a glass of currant juice, as her bushes had yielded but a very few currants the season past. I could not think of losing them, as I was too fond of their fruit, and besides, they had cost me much labor. Digging them up and rooting out all the grass was too great a task, therefore I thought I would try and smother it out. I

covered the earth around them to the depth of two or three inches with tan bark, putting some half a dozen shovelfuls into the centre of each bush. It operated to a charm,—the grass was exterminated, and the next season I spaded in the tan bark, and since then my bushes have yielded bountifully. I am satisfied that vegetable dressing is equally as good, if not better, for trees and shrubbery than barnyard manure, which I save for field dressing.

Topsham, Nov., 1853.

D. P. H.
Maine Farmer.

CARROTS FOR HORSES, MILCH COWS, &c. &c.

BY ONE WHO HAS HAD THOROUGH EXPERIENCE.

The value of the carrot as an article of food for horses and milch cows in winter and spring, is very far from being universally appreciated, else its culture for that purpose would be more general. There is nothing grown by the farmer that yields more abundantly in proportion to the labor, nor is there a production of the soil that will furnish a greater amount of nutriment to the acre than this root, for the use above named. They are a most admirable food for horses, in winter and spring, as they possess the peculiar qualities necessary to promote health and vigor in the animal during the period of the year when there is no grazing. They are, indeed, they best known substitute for grass, as regards horses, and if given in sufficient quantity, with as much straw and salt as the horse chooses to consume, will keep him in as fine condition in every respect. A medium sized horse requires from two to three pecks a day, when standing in the stable, and an additional peck when put to labor; though if the labor be very severe and constant, corn meal may be profitably added. (a.) One hundred and eighty days, or from Nov. 1st to May 1st, is the average time during which there is no grazing. A horse will, in that time, if put to hard labor, and fed upon straw and oats, consume at least ninety bushels of the latter, or half a bushel a day; and thirty bushels per acre being an average yield, it requires three acres of ground to produce the amount. Now for the carrots. One thousand bushels per acre is less than an average crop when properly cultivated, (though I have grown at the rate of two thousand, on highly manured ground,) and two bushels of them contains rather more nutriment than one of oats; therefore less than one-fifth of an acre of carrots is equal to three acres of oats! The expense of tillage for this fifth of an acre is about the same, all told, as for the three acres of oats. It also requires about double the labor to feed them, that it ordinarily does grain, as they should be chopped or cut with a knife, in small pieces, for feeding. But this additional labor, together with the extra cost of enriching the soil beyond the usual condition of oat-ground, is but little in comparison with the more than *fifteen hundred per cent.* increase of nutritious matter on the same quantity of land. Carrots are almost universally a favorite food with horses; but should one refuse them at first, an appetite is soon cultivated, and he devours them greedily. The effect of carrots upon horses always is, when fed liberally, a bright eye, a glossy coat, and an energetic, healthful appearance.

As a regular food for milch-cows, through the

winter and spring, carrots are very valuable. They increase the flow of the milk, give it a delicious flavor, and always insure yellow butter in a *legitimate way*. They are, without doubt, preferable to any other root, all things considered, for cows giving milk through the winter, or for new milch-cows before grass. They are said to fatten on them, when boiled, much faster than on potatoes, and sheep are usually very fond of them.

Carrot tops, fed to horses and cattle in November and December, are worth their weight in good meadow hay, and an acre of them is equal to half an acre of ordinary meadow. (b.)

When the enormous yield of this root, and its value as a healthy diet for stock in winter is duly considered, it is somewhat surprising that its culture is so generally neglected, especially by those having but a few acres. Every farmer and kitchen gardener knows how to raise a bed of carrots for family use, and they have only to enlarge their space and apply the additional labor, to extend the benefit to the yard and stable, and through them to their own pockets.

L. H. W.

Phil. Dollar Newspaper.

REMARKS.—“Two or three pecks a day” would probably “scour” any horse so that he would be unfit for labor in one week. Unless the horse is very large, and fed mostly on dry hay, without grain, one peck per day will be found a liberal feed of carrots.

(b.) The term “meadows,” used here probably means upland, and not, as with us, low ground producing an inferior quality of hay.

For the New England Farmer.

DOES COLD KILL THE PEACH TREES.

FRIEND BROWN:—Some years ago it was a popular doctrine that a certain degree of cold, say 12° below zero, would kill peach buds, but I did not believe it, as within the last few years the belief has become general that they were not affected by extreme cold. I have been examining my trees to-day (Feb. 22,) and have not been able to find a living bud, and for certain reasons I think they may have been destroyed by the extreme cold. Some time between the 28th of Nov. and the 10th of Dec., I was at work among my peach trees, and examined the buds on eight or ten trees, and found them all alive. About the 16th of Jan., 1854, I was pruning and heading in my trees, and examined again and found them all alive. Some time during the week commencing Jan. 29, I was at work again among them and found some dead buds, the most of them, however, were alive. Now they are all dead; and I find by looking at my account of the cold mornings that on Jan. 25th the mercury went 12° below; 29th 17° below; Feb. 5th, 16° below, and Feb. 7th, 20° below. Now, as the ground has not been thawed, and no warm weather of any consequence has ensued, I can account for their destruction in no other way than by the cold.

Yours &c.

B. F. CUTLER

Pelham, N. H., Feb. 22, 1854.

SHOES.—Next to agriculture the shoemaking business is the most important and profitable pursuit in Massachusetts, and has the largest number

of persons engaged in it. The *Andover Advertiser* says that the aggregate value of boots and shoes manufactured in this State is \$37,000,000, or more than that of all the other States combined—and far exceeding that of any other manufacture in the Commonwealth. About one-third of the above amount is shipped to New York, and the remainder is sent to the South and West, to California, the West Indies, South America, Australia, the Sandwich Islands, England, and the European continent. Lynn is more extensively engaged in this business than any other town, making nearly five millions of pairs annually. Then come in succession Danvers, Stoneham and Grafton. In the latter town, a single manufacturer uses one hundred bushels of shoe pegs every year. The pegs used in this immense business are mostly made in New Hampshire; they are cut by machinery, and one firm manufactures fifty bushels per day. Machinery is also now used to a considerable extent, for sewing and stitching the leather.

CARROTS vs. CORN.

MR. EDITOR:—Reading in No. 3 of the present volume of the *Farmer*, the report of committees on crops of the Kennebec Co. Agricultural Society, led to some thoughts about carrots. Which is worth the most, an acre of carrots or an acre of corn? I see Mr. May raised 199 bushels of ears of corn, which he reckoned at 50 cts. per bushel, amounting to \$99.50. He estimates the cost of plowing, planting, hoeing and harvesting, at \$26.50, but makes no mention of the fodder.

Capt. Foster raised on one-eighth of an acre 130 bushels of carrots, which he sold for two shillings per bushel. This is after the rate of 1040 bushels per acre, which, at the price the Captain sold for, amounts to the sum of \$346.66. He estimates the cost at \$10, making \$80 per acre, which I think is about right, leaving a profit of \$266.66. Now, Mr. Editor, any one can make figures for themselves. I think carrots are profitable roots to raise. We can raise more of them than any other root, and it is not so much work to raise them as many people think it is, till they try a few. I have raised carrots for three years, and like them much. I raised 60 bushels the past year, and am feeding them to my cattle (10 in number) one-half bushel per day, which is not 2 quarts apiece, and they do well on them and straw. I think I can winter a stock of cattle on oat straw (out when the straw is about one-third turned) and one-half peck of carrots each a day, as well as on second quality of hay.

—*Maine Farmer.*

JONA. S. LONGLEY.

BENEFITS OF GEOLOGICAL SURVEYS.—Three years ago the Legislature of North Carolina made an appropriation for a geological survey of the State. The discoveries of the first year developed the existence of copper and gold ores, drew to them the attention of capitalists, and have already increased the revenues of the State to five times the cost of the whole survey. In the second year, seams of the purest bituminous coal, some of them fifteen feet in thickness, extending through a region of some forty-five square miles, rewarded their investigations. It is estimated that every thousand acres of these seams will yield thirty millions of tons of bituminous coal of the best quality.

For the New England Farmer.

FARM IMPLEMENT FAIR.

MR. EDITOR:—I had occasion last summer to address you respecting the introduction of the mowing machine. It has occurred to me that there is a kindred subject to which it may be well to call your attention. I observe that you frequently notice the improvements in agricultural implements, and I consider this as something which gives peculiar value to your truly excellent paper. It is an interesting inquiry, how can these new inventions be most successfully introduced, so as to be properly appreciated by the farming community. They are not to be seen at our agricultural warehouses, nor at our cattle shows, nor yet at the Mechanic's Fair. We hear, indeed, that they are to be found at the Crystal Palace, some two or three hundred miles off, but for aught we know, they may never be any nearer, and that may be the first and last that we ever hear of them. Now I would propose to meet this exigency, that we have a Farm Implement Fair, in connection with a practical exhibition of the mowing machine. This movement may be thought to be a novel one, but it is not more so than the Horse Fair at Springfield, and it is believed that it is not less important.

The proposition of holding a national exhibition of horses, in connection with the Hampden Agricultural Society, was first made by George M. Atwater, in May last. A committee was then appointed to take the subject into consideration, as the society did not deem the object of the exhibition as coming exactly within their sphere, and out of the action of that committee has grown this grand exhibition, whose objects have been so generally appreciated and forwarded by the press throughout the country.

The horse has been called the great civilizer of man. That I deny. It was said with much more truth, "Wherever a man comes, there comes revolution. Man is the wonder-worker." The horse is undoubtedly a noble animal, but he can do nothing of himself. It is only when harnessed to human inventions that he becomes efficient. It is left to the skill and agency of man to increase his power, and make it available; it is by man's control and efforts, that he is made to aid in the great machinery of civilization. I certainly have no disposition to undervalue the capability of the horse, and while it is admitted that he is important in the progress of the arts, it cannot be pretended that the genius and efforts of man are less essential; indeed, I think that the pre-eminence of our rational nature over mere brute force, is clear and incontestible. Award then to man his just place in the march of improvement, and let him stand conspicuous in the great work of progress.

If then there is nothing in the merits of the case why a Horse Fair should have the precedence over a Farm Implement Fair, the question is, whether the demand for the latter has been or can be supplied in any other way. I have already stated that the implements in question are not to be found at our cattle shows. The farming utensils there exhibited, occupy but a small space. They generally consist of a plow, hoe, hay-cutter and apple-parer, and are crowded into a corner or six foot square. While every possible variety of fruit is spread out in profusion, agricultural implements form but a meagre and insipid part of

the show, and are almost overlooked or forgotten. How is it with the Mechanic's Fair! Here, perhaps, the farmers' department is better represented, but even here the display is mostly confined to the old and common tools of the farm, and there is little, which from its novelty and importance invites attention. As a significant fact, I notice that the editor of the *Ploughman* states, that he expected to see a mowing machine at the last exhibition, but did not find one there.

It is not much consolation to know that they are to be found at the Crystal Palace. They are not accessible, visible or tangible to the great body of our farmers, and there is little reason to hope that they ever will be. Should we ever have a Crystal Palace in our neighborhood, they would probably come with it, but this is an event upon which we cannot calculate. If it should ever occur, it most likely will be in some remote period of the distant future. But while we cannot go to the Crystal Palace, nor bring it to us, we can transport a part of the mighty whole into our midst; we can gather that portion which most nearly concerns us as a farming community, and have a show quite as interesting to us professionally, as the Great Fair at New York.

And now if it is asked what is to be gained by the introduction of all this machinery, I answer, much every way. It not only multiplies the power of production, but at the same time diminishes its cost. Take Ketchum's Mowing Machine, for example. In the ordinary act of mowing, the motive power comes out of the man; he has emphatically to put his shoulder to the wheel, and make it go; but by the use of the machine, he is relieved from this exhausting toil; the labor is transferred from the man to the team. He is released from the wear and tear of personal effort, he takes the place of an overseer, and at the same time is able to push forward the work five times as fast as he could do it himself. He thus saves himself, and saves time, and time is money.

The process of unloading hay is usually a slow and toilsome one. Pitched and mowed away as it commonly is with a fork, it will take two or three men fifteen or twenty minutes to remove a load. By the use of a certain apparatus constructed by Mr. J. A. H. ELLIS of Rochester, New York, one man can do it as well in less than five minutes.

REAM's patent corn harvester is upon the same labor-saving principle. It will cut with the labor of a horse and boy, from sixteen to twenty acres of corn a day, and lay it in bundles all ready for binding.

Such are some of the triumphs of genius. Great as they are, they are but a specimen of what has been achieved in the improved implements of the farm. A correspondent of the *Ploughman*, in his observations upon things at the Crystal Palace, remarks, "If we were to judge from the number of labor-saving implements, and the recommendations, we think our farms might be carried on with fewer Irishmen than they are at present. Undoubtedly many, perhaps a majority of them, are adapted to some sections of our country, and are a great saving of labor."

In the scarcity of farm laborers, Irishmen are, with few exceptions, the only men to be had, and they are generally raw hands, green in every thing in which we wish to find them efficient. If then the horse and the ox can be humanized by the magic

power of machinery, so as to serve as a substitute for this precarious help, of which we know nothing, and upon which we cannot rely, why should they not have the preference! In the one case, we have a sure and never failing resource; in the other, all is doubt and uncertainty.

In view of these facts, I have been led to propose a Farm Implement Fair, to be held at a season when we can have a practical exhibition of the mowing machine. Taken conjointly, they would mutually lend attraction to the time and place. *I would have this Fair for the benefit of inventors.* It is not to be supposed that individuals would bring their machines from distant sections of the country, without some consideration. No one could afford to do it at his own charge. *Now it is believed that the sale of tickets for admission to the show for two or three days, would secure an ample fund to meet this contingency, and gratuities might be awarded by an examining committee, which would operate as a bounty upon the products of American genius.* I was happy to find that the President of the United States alludes to this subject in his late message to Congress. "I commend to your favorable consideration the men of genius of our country who by their inventions and discoveries in science and art, have contributed largely to the improvements of the age, without, in many cases, securing for themselves anything like an adequate reward." It is only by a just and liberal patronage, that we can stimulate the best minds to labor in the wide field of invention.

Aside from the practical advantages of a Farm Implement Fair, it would be a museum to every curious and inquisitive mind. It would be a high day, a great day, for the place where it should be held. Is it asked where shall we hold it? I would answer at Concord. There the Agricultural Society have a building suitable for such an exhibition, and the warm and generous spirit of the people afford ground to hope that they would give a hearty response to this movement. You, Mr. Editor, are a Concord man, you move in a circle of influence which gives peculiar weight to your opinions and efforts. If, then, what I have advanced in this communication, meets your views and wishes, I hope you will have the frankness to say so, and if not, as a committee of ways and means, I trust you will suggest some other method by which the same great object can be better accomplished.

Acton, February 1, 1854.

REMARKS.—We most heartily concur with the opinion so succinctly and earnestly expressed by our intelligent correspondent. Our County Show has been sadly deficient for several years in the number and variety of Farm Implements presented. As a single item of encouragement to our friend, we will say that we have engaged a Mowing Machine, and intend to use it in our neighborhood during the next haying season. We hope his suggestions will induce some action on the subject.

VEGETABLE MECHANICS.—There is a remarkable tree on the farm of the late Hon. Olney Ballou, of Cumberland, R. I., which is an emblem of himself in his struggles against the obstacles of life. An

old elm standing near a mass of rocks, died. A young elm then appeared in a fissure of this rock, casting down its slender roots, and in twenty or thirty years, it has become a foot and a half in diameter. Its roots have penetrated into and under the rock, and have lifted and thrown off about seven tons of it, and have loosened and partly lifted ten tons more, which in a few years will be separated from the mass. The roots to bear the immense pressure upon them, have become changed from the ordinary appearance, and have a tough casing which may be compared to the skin of an alligator. The provisions thus made by nature for the growth of the tree under such difficult circumstances, furnish a striking specimen of what may be called vegetable mechanics. The greatest wonder is that the roots could grow and expand under such a heavy pressure of hard substance.—*Providence Post.*

For the New England Farmer.

THE "APPLE MAN'S" STORY.

FRIEND BROWN:—As you have honored me by the title of "Apple Man," and seeing not long since an article in the *Farmer*, giving an account of my fruit crop, the last barren season, I thought it might not be amiss to give you a few more particulars respecting the same. The lot of land on which my buildings stand, contains between 8 and 9 acres, about $\frac{7}{8}$ of which I cultivate; planting or sowing, where it is not too shady, except a small patch where I keep a cow. The amount realized from my fruit and other crops was, as near as I can calculate, for apples, \$625; pears, quinces and cherries, \$165; strawberries, raspberries and currants, \$115; vegetables and fodder, \$120; sum total, \$1025. The quantity of manure used, I think would fall short of five cords. I plow late in the fall, after the leaves drop from the tree. Use the plow and cultivator in summer to keep down the weeds, where it is not planted. I think all the labor performed in raising and marketing, I could have done myself (although 61 years of age,) with the exception of paying out to children twenty or twenty-five dollars for picking strawberries and peas; and considered it a pleasant and healthy exercise too. I have found by long experience that any kind of business whatever, which we choose to pursue for a livelihood, or gain, requires *perseverance* and *economy*. We should always count the cost before entering into any branch of industry, in order to make us happy and prosperous.

When I purchased my farm, my principal object was the cultivation of fruit. I have given strict attention in pruning and grafting and have cultivated about thirty varieties of apples; some of them are seedlings selected from different towns, in order to test their qualities and productiveness. Some of them you have had an opportunity of seeing and testing, my Red Favorite particularly. The Baldwin, I think, is the standard apple as yet, although somewhat depreciated; the Hubbardston commands a higher price, but will not keep as long. Now, sir, as I am located near good markets, my advantages for selling fruit have been extremely good, therefore, my business thus far has proved to be a profitable one. I have had many doubts with regard to overstocking the market with fruit. One year ago the market was

glutted with apples. If there is nothing to blast the crop in the future, I see no reason why the market may not be overstocked again, therefore, farmers who live in the country, distant from market, who do not possess the knowledge required for cultivating fruit trees, I think their money and time (as the markets now are,) would be better appropriated to the raising of neat stock, and other country produce. A man bought of me last season 750 scions, and hired them set. He says there is not more than one in twenty which are alive. This is one instance, out of many, where money and time have been thrown away and trees very much injured. I would, however, recommend the grafting and pruning, fruit trees anywhere in the country, if it can be thoroughly done, so as to meet the approbation of the owners, in giving them their desire of the choicest fruits the country affords. N. P. MORRISON.

Somerville, Feb. 6, 1854.

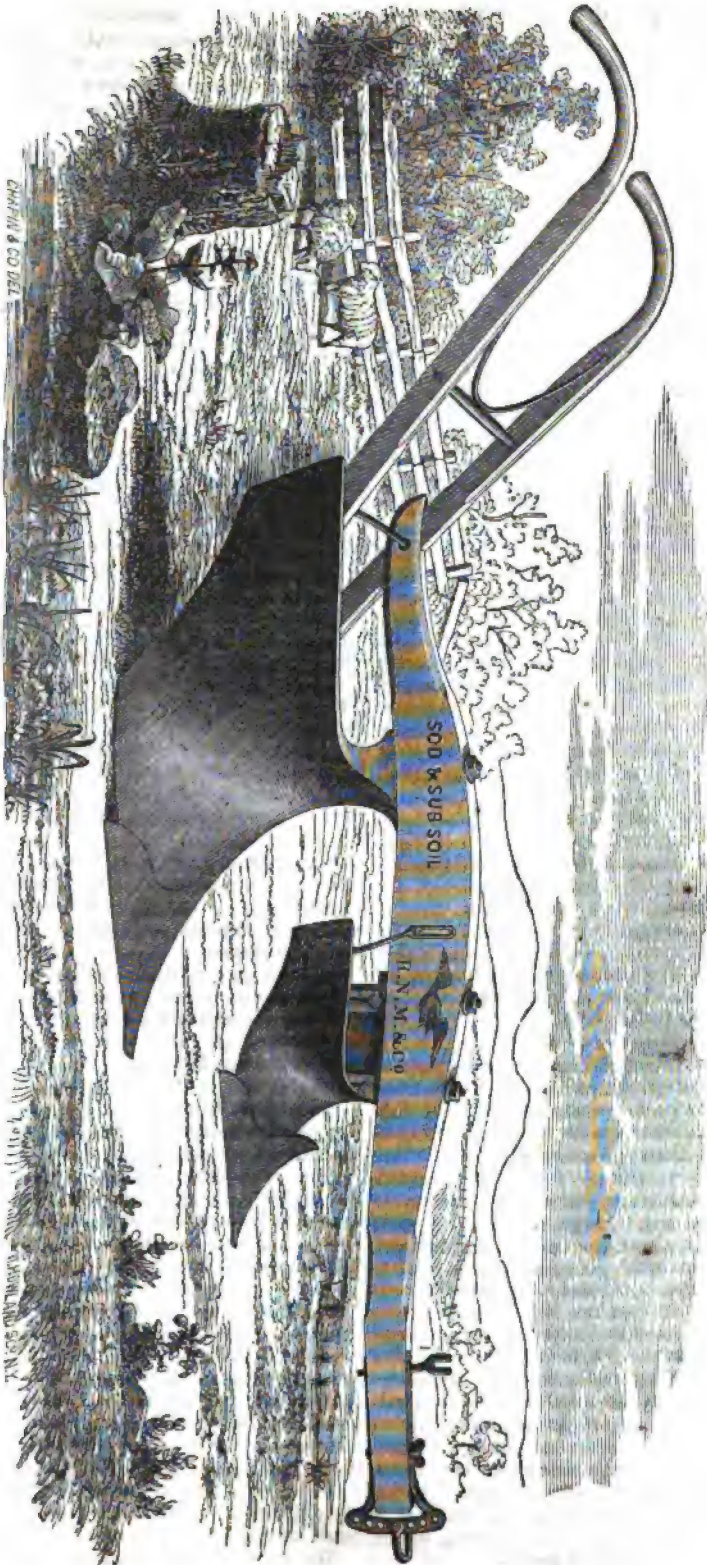
REMARKS.—We have no fears that the market will be overstocked with good fruits.

FARMS IMPROVED BY KEEPING SHEEP.

To some extent, keeping sheep is found to improve a farm, as they consume much feed that is left by other stock and lost, and at the same time enrich the ground, and give it a better and smoother appearance. This is shown by instances quoted in the Transactions of the Norfolk Agricultural Society, which we relate in brief:—

A man having a small farm, formerly kept forty sheep, four cows and one horse, and had food enough for them the year round. The price of wool falling, he sold his sheep, and for a number of years has kept other stock altogether. He now keeps but three cows and one horse the year round, and pastures two cows extra through the summer, sells very little hay—not half enough to keep another cow; he has the same amount of pasture and mowing as when he kept the forty sheep in addition to his other stock, and yet his farm does not look near as well as then. He used to raise turnips among the corn for his sheep to eat in winter, and gave them besides, a few bushels of grain. The lambs, however, more than paid for his extra feed.

Another farmer for a great number of years kept about sixty sheep, eight or nine cows, (or other stock equal,) one pair of oxen and one horse. After keeping the sheep for a number of years, he found he could then keep as large a stock on his farm with the sixty sheep, as he could keep without them before; showing that they had improved the farm to furnish their own support. To stock a farm entirely with sheep would not be so profitable as to keep a limited number—yet it would pay as well as other stock. The object is to keep enough to consume that part of the vegetation peculiarly fitted to sheep, and which other stock will not eat, adding at the same time enriching elements to the pastures and yards by their manure. It is the opinion of many farmers, that pastures for other stock may be improved by keeping a small flock of sheep upon them a portion of the time, and the opinion seems fairly supported both by reason and experiment.—*Wool Grower.*



STEEL DOUBLE FLOW.

STEEL DOUBLE PLOW.

This plow has been well tested, and is coming into use very generally. We use it with satisfaction, and believe we can do our work easier, cheaper, and better, with it, on smooth land, than with any other plow. We take our description from Ruggles, Nourse, & Co.'s illustrated catalogue. The double plow is not a new implement, as it has been used in England for many years; but these manufacturers have made important improvements in it.

"The forward mould-board is connected with the beam, and its depth of furrow is adjusted as follows: A substantial iron flange is fastened to the under side of the plow-beam by two bolts passing up through the flange and the beam and made tight on top by nuts and screws: the flange has two rows of slots in it to receive the bolts from the landside of the forward plow, and the bolts make the plow entirely and substantially fast to the flange when their nuts are tightened; and by means of the slots in the flange, the forward plow is raised or lowered and made perfectly fast and secure at any point wanted for the regulation of its depth of furrow, and any requisite depth may thus be secured to any degree of nicety. The forward mould-board turns the sod-furrow as wide as the working of the whole plow, and the earth on top assuming an arch-like shape, is naturally opened, while the effort of the rear mould-board brings up the deeper soil, completely covering and filling the surface, so that the sod-furrow is in no case liable to be brought to the surface by harrowing or other processes of after-cultivation, the surface of the furrows lies arching, the cohesion of the soil is neutralized, its integral parts are disunited, and the plowed land lies light and mellow, and almost as fine as if harrowed,—indeed, in some fine soils rendering the use of the harrow quite unnecessary. Two other sizes of the Double Plow are made by the manufacturers, namely, Nos. 31 and 35, —No. 31 being a size smaller, and No. 35 a size larger than the No. 33 above represented. These sizes afford a range of work from 7 to 15 inches deep."

FERTILIZERS.—The official report of the Minister of Finance of the Republic of Peru states that according to the recent measurement of scientific men the Chincha Islands now contain 16,401,466 tons of guano. Peru possesses also many other guano deposits containing a very considerable quantity, the measurement of which has been ordered by government. Large deposits of guano are also scattered about the Indian Archipelago, and specimens of bats' guano have been sent to England from Penang. But a member of the Chemical Society in London, Mr. Way, believing that all these immense stores of agricultural wealth must be exhausted in a few years, has brought the subject before the Society. There are at Farnham, in Surrey, deposits of "soluble or gelatinous silica," some eighty or one hundred feet in thickness, and covering an area of several miles. This silica, Mr. Way says, can be easily made to combine with lime, forming silicate of lime, which is very beneficial on light lands, inasmuch as it prevents the over luxuriance of growing grain, and strengthens the straws.—*Journal.*

UNITED STATES AGRICULTURAL SOCIETY.

The annual meeting of this society commenced its session at Washington on the 22d of February; but owing to the unprecedented storm which had delayed the arrival of delegates, no business was transacted on the first day.

THURSDAY, Feb. 23.

The Society was called to order at half-past ten o'clock—Hon. MARSHALL P. WILDER, President, in the chair—W. S. KING, Recording Secretary. About 100 members were present from 19 States.

The President delivered his annual address, which was referred to the executive committee for publication.

On motion of Col. C. B. CALVERT, of Maryland, business committees of three were appointed, to whom were referred the various subjects brought before the meeting.

A committee of one from each State was also appointed to nominate officers.

Prof. MAPES, of New Jersey, had several subjects to present, if he knew the proper time to do so. He had in his hand a head of wheat, part wheat and part chess, which he wished to offer. It was placed in his hands by a farmer of Livonia, Livingston county, New York. He had also a new style of plow to bring to their notice.

Mr. DEDERICK, of Albany, New York, moved that a committee of three members on the subject of Agricultural Machinery be appointed, and to report to the Society. He spoke at some length in explanation of the great importance to the agricultural interest of being placed in possession of the best implements for the prosecution of their labors. The motion prevailed, and Messrs. Dederick, Musgrave, of Ohio, and Mapes, were appointed.

Mr. DENTON OFFUTT, of Lexington, Kentucky, moved the appointment of a committee on Animal Physiology, and the general improvement in all respects of domestic animals. It was a subject of high importance.

Mr. CALVERT testified to the influence, to him wonderful, whatever it was in itself, of Mr. Offutt's power over at least one animal, the horse. He had been an eye witness to a scene at the Maryland State Fair, which may be mesmerism, or magnetism, or what not; but Mr. Offutt reduced almost instantaneously a horse noted for vicious propensities, to gentleness and tractability. He warmly seconded the motion of Mr. Offutt.

An invitation from Mr. GLOVER to the society to visit his collection of models of fruits at the Patent Office was then read. The invitation was accepted, and a committee consisting of Messrs. Worthington, Berckman, Warder, Munn and Richards, was appointed to report upon the same.

The President then offered for consideration the contents of two communications confidentially committed to him. One was from Mr. JOHN HITCHCOCK, of St. Lawrence county, New York, on the subject of a remedy for the potato rot; the other on the subject of a remedy for the devastations of the *curculio* on fruits, by some person whose name did not transpire. The object of the parties seemed to be to get their remedies to be tested by the society through committees of the same, and reports made at the meeting of next year.

The question on the reference of these propo-

sals gave rise to a very animated debate, in which views of very opposite character in respect to the probable value of the alleged discoveries were elicited. They were finally, after a strenuous opposition, referred to the Executive Committee, to test the modes proposed and to report to the next annual meeting of this society.

The subject of the Curculio was referred to a committee, consisting of the President and Messrs. Brinckle and Berckman.

A committee was appointed to petition Congress to make some arrangement with the government of Peru, by which Guano might be procured at reduced prices.

A communication from Mr. James Pederson, on the subject of introducing the Alpaca or Peruvian sheep into the United States, was then read by Mr. Munn, of New York.

At the evening session Professor MAPES exhibited and explained an improved sub-soil plow, invented by himself.

FRIDAY, Feb. 24.

In the absence of the President, Hon. JOHN A. KING, of New York, was called to the chair, when Professor Fox, of Michigan, delivered an address on the best means of extending Agricultural Education in the United States, which excited considerable discussion, during which the President of the United States rose, and, addressing the Chair, thanked him for the intelligence that had been furnished him of the session of the society; spoke in terms of compliment and approval of so much of Prof. Fox's address as he had heard; acknowledged the high interest and importance of the object of the society, and of the question before it; and said that while he should be most happy to remain during the interesting proceedings yet to be had, other duties demanded his retirement, and compelled him to bid them good morning.

The question of petitioning Congress to purchase Mount Vernon, for the purpose of making it the site of a national Experimental Farm, was discussed by Messrs. TAYLOR, CALVERT, EARL, BROWN, KING and others, without coming to any definite conclusion. At the evening session, on motion of Mr. Earl, the memorial of the Maryland State Agricultural Society, petitioning Congress to purchase Mount Vernon for an agricultural school, was taken up and read.

Mr. FRENCH, of Massachusetts, advocated the adoption of the resolution. It was carried, and Messrs. Blair, of Maryland, Earl, Brown, King, of New York, and French, of Massachusetts, were appointed a committee to present it to Congress.

Mr. BROWNE, of Pennsylvania, made a report from the committee appointed to investigate Mr. Denton Offutt's system of animal physiology.

Mr. ROBBINS, of Ohio, presented a memorial from citizens of Ohio asking the countenance and patronage of the society to a cattle exhibition to be held in September next, in Springfield, Clark county, Ohio, which was referred to the Executive Committee.

Hon. M. BENSON presented a resolution, in behalf of Mr. MEACHAM, of Vermont, that a National Exhibition of Sheep be held in the course of the year in the State of Vermont, at such time and place as the Agricultural Society of Vermont shall appoint. Carried.

Mr. FINCH, of New York, proposed that a monument should be erected to the memory of John

S. Skinner, the pioneer of American agricultural editors.

Mr. BROWNE, of Pennsylvania, supported the proposed tribute.

A resolution, which recommended a stone in the National Washington Monument, with a suitable inscription, was carried.

Mr. BRADFORD, of Delaware, made a report on the guano trade, narrating the interview of the committee on the subject with Mr. Dudley Mann, Assistant Secretary of State. Hopes are entertained that arrangements may be made with Peru by which the price of guano will be reduced.

Mr. CAUSIN, from the committee to examine and audit the accounts of the Treasurer, reported, complimented their accuracy, and stated a balance of \$3,005 in favor of the society. Of this upwards of one thousand dollars have been contributed at the present meeting.

Mr. BENSON read a bill now before a committee of Congress creating an Agricultural Bureau.

Mr. CALVERT recommended the creation of an Agricultural Department, on an equal footing with the other agricultural Departments, the Secretary to have a seat in the Cabinet.

PETER A. BROWNE, of Pennsylvania, spoke at length on the various propositions for Congressional aid, and gave his own opinions.

Mr. KING, of New York, moved that the society adhere to the resolutions of last year, asking for a full department.

We do not find it stated whether this, or any other resolution on the subject, was adopted.

Addresses were delivered by Dr. WARDER, on the Culture of the Grape—by B. P. POORE, on the History of Agriculture, and by Dr. Eddy, on Bees and Bee Culture.

OFFICERS FOR THE ENSUING YEAR.

The officers of the United States Agricultural Society for 1854 are:

President—MARSHALL P. WILDER, of Mass.

Vice Presidents—19, (one from each State represented.)

Executive Committee—C. B. Calvert, John A. King, A. L. Elwin, J. D. Weston, B. P. Poore, A. Watts, John Jones, W. S. King.

Cor. and Rec. Secretary—W. S. King, of Boston.

Treasurer—William Selden, of Washington.

For the New England Farmer.

GUANO FACTORY.

Some years ago, I thought I would try my luck in keeping a few hens. The house I keep them in is a rough, cheap concern. I put some crotches into the ground, boarded up outside and inside, then filled in with saw dust to make it warm. It is well lighted with glass windows, and well ventilated, and a small stream of water runs through it. The roosts will accommodate about one hundred hens, that being the number I usually keep. Under the roosts I throw three or four ox-cart loads of dry muck, chip dirt, &c., which I haul over two or three times a week with my manure hook, I bury their grain in it, and make them work for a living, which gives them exercise in cold weather. In the spring, I have a fine heap of home made guano. If there is anything imported that is better to make our crops grow, I am mistaken.

Brattleboro', Vt.

C.

HOUSE ASHES.

The value of house ashes as a stimulant of vegetable life, is now happily too well understood to need any illustration. On corn, wheat, garden vegetables and root crops in general, the highly beneficial effects of wood ashes, have probably been witnessed by every one. In compost, they are also of great value; and as a top-dressing for grass land—especially where the land is cold and inclines to the production of moss, or has become "bound out," ashes are of the greatest service. In the cultivation of fruit trees, no application is of greater efficiency, or productive of more immediate or obvious results.

The effect of leached ashes upon the crop may be as good, perhaps, for one or two years as that of the unleached, but it cannot be as permanent, as most of the potash is washed out by the process of leaching. "Wood ashes may be used to advantage to almost every class of crops, but especially as a dressing for grass, grain, millet, and Indian corn; but they are the most perceptible upon leguminous plants, such as clover, peas, beans, &c. As a top-dressing to grass lands, they root out the moss, and promote the growth of white clover. Upon red clover, their effects will be more certain if previously mixed with one-fourth of their weight of plaster."

But there is a remarkable difference in the quantity of potash produced by equal weights of different trees and plants. In Sir HUMPHREY DAVY's Lectures on Agricultural Chemistry, we find a table showing this difference in several kinds of trees and plants, which we give below as a matter of interest to the curious. Potash was once called "salts of wormwood," and the reader will perceive that the name was not inappropriate when he notices that while the oak has only 15 parts in 10,000 of potash, wormwood has 730!

PARTS OF POTASHES.	
10,000 parts of the poplar produced.....	7
" " beech.....	12
" " oak.....	15
" " elm.....	39
" " vine.....	56
" " thistle.....	53
" " fern.....	62
" " cow thistle.....	196
" " bean.....	200
" " wormwood.....	730

There is no doubt, now, among any agricultural people, of the great value of ashes as a fertilizer. It was held in as high estimation among the Romans, and the ancient Britons, as it is at this day. A German counsellor, HERESBACHIUS, in his *Treatise on Husbandry*, published in 1570, tells us that "in Lombardy, they like so well the use of ashes, as they esteem it farre above any doun, thinking doun not meete to be used for the unholsonnesse thereof." Their use as a manure is also very general in England at this day.

With this concurrent testimony, therefore, of the value of ashes, we hope to see less of it in the gutters and highways, and more upon the gardens and fields.

For the New England Farmer.

EXPERIMENTAL FARMS.

The suggestion in the last number of the *Farmer*, as to the establishment of experimental farms in the several Counties of the Commonwealth, and the appropriation of some portion of the funds of the County Societies to the management of these farms, are worthy of deliberate attention. It is certainly true, that very little benefit accrues from the awarding of premiums, when they are sought merely for the money obtained. Unless the claimant is moved by the desire to improve himself and his neighbors, by his experiments, but little benefit will be derived from them. If he is moved by such a desire, how can it be carried out better, than on farms established for the purpose, where all the operations will be carefully observed and reported.

If I do not mistake, something of this kind is contemplated by the Legislature, in placing the farm at Westboro' under the care of the Board of Agriculture. By so doing, two objects will be gained at the same time. 1. The Board will have an opportunity to display their skill in farming. 2. The boys will be instructed in useful labor. Allow me to congratulate the community, that this first step in the way of improvement has been taken. If judiciously pursued, it cannot fail to be beneficial. If farming is what it is cracked up to be, it cannot fail to sustain itself under such management.

How would it answer, for the Legislature to require of County Societies, to invest a part of their funds in *experimental farms* instead of *paying stock*, as now required? Certainly such a requisition might be made of all societies to be incorporated; for which several applications are now pending.

I am heartily glad to see the remarks of the gentleman from Plymouth. He never speaks without having something to say.

Feb. 27, 1854.

SOAKED CORN FOR HORSES.

One of the most successful and judicious farmers in the vicinity of Baltimore, effects a saving of from one-third to one-half of his corn, by soaking it thoroughly before feeding. His method is this:—two empty vessels, hogsheds, or something similar, are placed in his cellar where there is no danger from frost, and filled to the chime with ears of corn. He then pours in water, till the receptacles are filled. When well soaked, the corn is fed to the horses, and when the contents of one cask is consumed, it is again filled, and the animals fed from the other. Even cobs, soaked in a similar manner, but in pickle instead of pure water, are eagerly devoured by cows, especially if the usual allowance of salt is withheld. The corn cob contains a large quantity of nutriment, and is by far too valuable to be thrown away. *x. r.*

Chester, Kent Co., Md., Jan. 2, 1854.

REMARKS.—This has become a general practice among judicious farmers, who feed their horses upon corn. Our estimable friend, David Landreth, Esq., who keeps a number of fine horses upon his great seed farm, near the town of Bristol on the Delaware, always feeds them upon soaked corn, and has done so for several years. He considers it a decided advantage.—*German-town Telegraph.*

EIGHTH AGRICULTURAL MEETING, AT THE STATE HOUSE, TUESDAY EVENING, MARCH 7, 1854.

SUBJECT,—*The Culture and Preservation of Fruit.*

The meeting was called to order at 7½ o'clock by Mr. SIMON BROWN, and Hon. Mr. BROOKS, of Princeton, was invited to take the chair for the evening.

Previous to entering on the discussion of the topic for the evening, Mr. HOLMES, of Nova Scotia, delivered a short but interesting lecture on the subject of *Vegetable Physiology*.

The lecturer, after alluding to the many beautiful and gorgeous scenes which are presented in the vegetable world—in the grass of the fields, the flowers, the shrubs, and the wonder which they excite, remarked that if we turned our attention to their construction and growth, we should find them equally wonderful and interesting. A plant consists of three essential parts—the roots, the stem and the leaves. The roots extend themselves into the earth, the stems stretch upward and spread into branches, and the leaves shoot from the latter. The stem is a bundle of small tubes cemented together in a vertical position, and consists of four parts—the pith, the wood, the bark, and the medullary rays, the latter being those rays which we find radiating from the centre of the tree to the bark. The wood consists of two parts,—the true wood, and alburnum, or new wood. The root when it leaves the stem, differs but very little in character from the stem itself, but as it penetrates the ground, first the wood, and then the pith, gradually leave it, and finally nothing but a pithy, soft wood, covered with bark, remains. The green matter in the leaves corresponds with the inner bark of the tree, from which the leaves derive their color. The function of the roots of a plant is to absorb and convey to the stem those juices which nourish and sustain it, as water, carbonic acid, &c. Gases, when in a state of solution, also enter by the roots—as ammonia, and oxygen,—and lime, magnesia, and other mineral substances, are absorbed in this manner. It is also a function of the roots to select the particular kinds of food which a plant needs, and reject all others,—a fact which has been demonstrated. They also promote the excretion of certain substances which have performed their part. The pith of a tree does not seem to perform any very important function, as it may be removed without causing, apparently, any great injury. The leaves of a plant are its lungs. If the roots of a plant in leaf are put into a basin of water, the water will disappear, having been evaporated by the leaves. Their most important function is to inhale carbonic acid, that great essential for the growth of a plant, and exhale oxygen; but this process is by night inverted, the plant absorbing

oxygen and throwing off carbon. The amount of carbon inhaled during the day, however, far exceeds that emitted by night. Different substances may be composed of precisely similar elements, combined in exactly the same proportions; some of these substances may be transformed one into another. By the application of heat, the woody fibre may be changed into gum, the gum into starch and the starch into sugar. The character of a plant cannot be determined by its chemical elements. In growing plants the temperature of the climate should be consulted. Plants indigenous in warm latitudes will yet germinate and thrive in much colder ones, showing that the seed possesses a heat of its own. The light is prejudicial to germination. The pistils of flowers, which are the germs of the fruit, are at first tasteless, but after a while as they grow, absorb oxygen, and become sour, remaining so until the fruit attains its full size, and begins to ripen, when the sourness subsides and the fruit becomes sweet by the accumulation of sugar. Apples will ripen after being taken from the tree, if supplied with oxygen.

The lecturer concluded by remarking that scientific agricultural chemistry was the key by which it was hoped at some future time the diseases of plants might be discovered. As it is, the science has already rendered great services to the farmer.

At the conclusion of the lecture, the Chairman invited remarks upon the subject of *fruits*, and called on

Mr. FIELD, of the Senate, who remarked that he had cultivated some kinds of fruit to some extent, and with unusual success. This success he attributed to his manner of culture, which is in the fall to dig in around the tree all the leaves which have fallen from it, and then spread six to ten fork-fuls of manure about it.

Mr. RUSSELL, of the house, said he felt interested in the subject, but he should prefer hearing the opinions of gentlemen of more experience, than to occupy the time with remarks of his own.

Mr. SIMON BROWN, of the *N. E. Farmer*, followed and remarked that he had nothing special to say in regard to the subject, but felt great interest in it. He sincerely believed in the advantages of cultivating fruit, and to a very considerable extent he considered it a profitable crop when properly cultivated, with a soil and climate congenial to its growth. He would speak of but one kind of fruit—apples. He believed that this crop might be increased four fold from what it now is, and still be found a profitable one. Instead of attempting to raise potatoes to feed swine and cattle, we may resort to the apple crop with profit. It is an easy crop to raise, when its management is understood, is easily harvested, and affords sufficient nutriment to make it worthy the attention of the farmer to cultivate it as a common feed for

stock. Of this latter fact he had been assured by a great many persons who had tried the experiment. Suppose a man has a ten acre lot, with ten apple trees thereon, he will get more grass in ten years by having those trees on his lot, than he would get without them. They have a great effect in retaining the moisture in the land, which is an important advantage in our dry hot summers. And then suppose from those ten trees, ten bushels of marketable apples are gathered, amounting to one hundred bushels of apples, which are obtained besides the grass crop. He had no doubt such a result might occur for seven years out of ten. The cultivation of apples is as simple, almost, as that of a hill of corn, if begun rightly. He would have his nursery trees shaped in the nursery. They should not stand thickly, causing them to run up slenderly, but where the light and air can come to them; and for the first two or three years allowing the lateral shoots which come out in spring, to remain through the summer and autumn. The leaves are the lungs of plants, and if these little side shoots are cut off, the growth of the tree is retarded, and sometimes entirely suspended. He would cut them off late in the fall, and if quite small, leave them through another summer. The ground should be plowed deeply, and pulverized well, and made as rich as a cornfield would be which was intended to be laid down to grass, and from which two tons of hay per acre is expected. Dig around the tree, spread manure, add annually a little ashes, and they will grow on almost any soil. If properly taken care of when young, the full grown tree will rarely need trimming. The top of the tree should be kept open, to admit the light and air to ripen the fruit, for there is nothing that grows but needs a liberal supply of the sun. Mr. Brown said he would not wash trees unless they had the appearance of needing it, were mossy, or stunted by neglect, and then a thorough scrubbing with soap suds would give them a new start. Old orchards he should not cut down, so long as there was two or three inches of sound wood left; but the trees should be trimmed properly, and a crop of apples can be obtained from them quicker than from young trees. Pruning should not be done in spring, after the sap is in motion, because it will continue to flow from the wound, and soon becomes bitter and poisonous; it is so acrid and pungent as to mark its passage down the bark of the tree by a black stripe, which frequently kills the bark, and thus commences the destruction of the tree. He would trim, he said, in the autumn, after the leaves have fallen, say in October and November, or omit it until June.

Mr. COPELAND, of Roxbury, remarked that when a man plants a tree he should look at it as it would look twenty years after, and trim it while young, as he would like to have it appear at the

end of that period, a thing which is perfectly easy to accomplish. As a general thing, trees have roots of about the same size and number as the branches; and if large branches are cut off close, the corresponding roots die and become a canker to the tree. If cut so as to leave a small branch on the stump, the sap will flow into that, and the tree will remain healthy. Great care should be exercised in obtaining trees from nurseries, as there is much deception practiced in regard to them. Instead of buying a cheap article, the farmer should send to some nurseryman who has established a reputation for honesty, and by paying a fair price, he will obtain trees which he can rely upon. The speaker instanced a case of successful cultivation of dwarf pears, which was brought about by thinning out the blossoms and fruit on the trees, limiting some of them to ten or a dozen pears each, thereby vastly increasing the flavor, size and beauty of the fruit. This fruit, raised in New Jersey was sold in the Philadelphia market in the height of the season, for \$1.00 to \$2.00 per dozen, when the same varieties, raised in the ordinary way, did not command over \$1.00 per bushel. He thought farmers were too much afraid of this mode of culture, and did not understand its advantages.

Mr. FRENCH, of Braintree, alluded to the necessity of starting right, by selecting a congenial soil and preparing it rightly. It should be plowed deeply, and if trenched with the spade it would be an improvement. All those who carried off the premium for fruit last year raised it on light, loamy soil. Pears on quince stock will bear planting a little deeper than those in their own stock. If a tree, with the roots spread, is planted, too low, it will become stunted and cease to grow; but if planted on the top of the ground, as the speaker had five acres, and then cover the roots with manure, they would flourish exceedingly. Out of 400 planted in this way he lost but two. He thought old trees should not be grafted all over at the same time. If the tree is large, say 10 or 12 inches in diameter, grafting the whole head at once, will generally prove the death of the tree. If done gradually the process is more likely to succeed. Trees should be set out two rods to forty feet apart; and on being set out the care of the tree is just begun, instead of being finished. It would be better to turn cattle into a cornfield than into an orchard, because in the former the damage may be remedied the next year, while in the latter, it never can be. Animals, by rubbing against a tree, rub off a kind of grease, which is very deleterious to the tree. Some old farmers complain that they cannot get any fruit from their orchards; and no wonder, for on examination it will be seen that it is as much as the trees can do to live. The leaves look yellow, and the ends of the limbs are dead, a certain sign that the nourishment of the

tree is exhausted. By breaking up the ground and cultivating it, in two years, such an orchard may be made to yield good fruit. Mr. FRENCH dwelt on the need of a State fruit farm, where all the different varieties of fruit, as they come before the community, may be tried and their value ascertained. This would be of great benefit to the farmer, as by applying to the superintendent he could ascertain at once the best varieties. A subscription of one dollar from each farmer in the State would yield one hundred thousand dollars, and this sum would establish such a farm, on which farmers' sons might be educated especially for agriculture.

Mr. CURTIS exhibited to the meeting some admirably preserved pears, which were the result of a secret process for retarding the ripening of the fruit.

Mr. BROWN announced that the Executive Committee had written to Dr. LEE, of Rochester, N. Y., in regard to lecturing, and he was expected to lecture on next Tuesday evening; but if he should fail, a lecture would be delivered by Mr. HOWARD, of the *Boston Cultivator*, on the subject for that evening, viz.

Neat Cattle.—What is the best method for improving stock to be kept on the farm?

For the New England Farmer.

AGRICULTURE IN MASSACHUSETTS.

Senate document No. 7, just come to hand, gives encouraging assurance, that agriculture is soon to occupy its appropriate place in the councils of the Commonwealth. No one can arise from the perusal of this paper, without being forcibly impressed with the vastness of the field of labor it opens. This bird's eye glance, at the comparative conditions of farming now, with what it was one hundred years ago, affords some criterions to hope what it may be, one hundred years hence—even at the same rate of progress. But when the go ahead propensities of the age, are taken into view—it may not be easy to estimate, the proportions it may attain.

We are pleased with the discriminating intelligence, modified by a commendable diffidence, apparent on every page of this Report. Much better to be so, than in a dictatorial, authoritative style. It is always better not to make assertions, than to retract assertions. Few things in agriculture are so certainly known, as to be averred with entire confidence.

In the notice of the culture of the cranberry, more new ideas are presented, than on any other topic. This is indeed, to most, a new species of culture; governed by rules somewhat extraordinary, deriving support chiefly from air and water, and not from the soil. Considering the excellence of this fruit, and the increasing demand for it, it will not be surprising, if the diffusion of this information, should greatly extend its culture. We have ourselves, in the North-easterly extremity of the State, more than once, witnessed the successful upland culture of the cranberry—generally accompanied with a liberal dressing of mud from the

meadows, operating not as a fertilizer, but as a sponge to retain moisture.

We looked with interest, to see what might be said of the "native stock of New England;" but we do not find the author prepared to add to our assurance on this topic. He thinks the Devons, as a class, were not known in England, at the time of the first importation of cattle here. This may be, but it by no means follows from this, that they did not have the same origin as the Devons of England. They certainly have a most striking family resemblance; and in our judgment, afford the best basis for permanent improvements.

We commend the perusal of these pages to all who are willing to be instructed in matters agricultural; feeling confident, that the first Report of the Secretary will be found entitled to a favorable reception.

March 4th, 1854.

NEW USE OF PLASTER OF PARIS.

Although proposing a new remedy for that most distressing and discouraging disease, spasmodic asthma, may not be an agricultural topic, yet if the use of it should relieve only two out of twenty farmers who we know are troubled with this disorder, it cannot be said that it has done farmers no good. We will here promise that we have not tried this remedy, and know nothing practically in regard to its remedial powers.

We send the story of its use around, with a view to have it tried by the suffering who have as yet obtained nothing to relieve them. We find it communicated to the *Boston Medical Journal*, by J. P. Root, M. D., of New Hartford Centre, Ct. He gives two cases, as follows:

"Some three years since I was called to see a severe case of spasmodic asthma, in the person of a young lady of eighteen years. After going through with the articles commonly used in such cases, but with little effect, I accidentally hit upon the use of 'plaster of Paris,' in mixture, with almost magic-like result.

The only thing previous to this that gave her much relief was the smoking of stramonium leaves. Since using the plaster, however, she has been constantly improving. In fact, for the last two years or more, she has nearly forgotten what formerly alarmed not only herself and friends, but troubled her physicians. I have used this article ever since with similar results.

About two months since I was called to witness the agony of a little girl of twelve years, lately moved into this vicinity—more to console her friends than to relieve the sufferer, as they had given up the idea of ever seeing her cured, or even made better; for, to use their expression, they had 'been to all the doctors, and they didn't do her any good.' She had not been in a recumbent position for a week. I immediately commenced the use of my favorite remedy, with results as before.

The mixture should be prepared similar to lime water, and used freely, diluted in water or milk, on each recurrence of the spasm."

Dr. Root goes on to say that he is in the habit of prescribing, for his asthmatic patients, cold sponging about the neck and chest every morning, followed by brisk friction.

The readers of the *Farmer* will see that a trial of this remedy will not involve much expense.

Throw a handful of plaster into water. It will take about seven hundred parts of water to dissolve one part of the plaster.

Having attended to the human patient, let us consider it agriculturally, and inquire if it would not be useful for horses that have the heaves. We consider the two diseases analogous, if not identical in character. We also consider them to originate in a peculiar condition of the stomach. Some years ago we noticed that "heavy horses," as they are called, were enormous eaters, and we have been assured by some men who have occasional attacks of asthma, that previous to the recurrence of the attack their appetite increases, and they eat much more than at other times. We have also known heavy horses much relieved by drinking water from a tube in which lime had been thrown.

Try the plaster of Paris water for them.

Query.—Did you ever know an animal that chewed the cud have the heaves? We never did, and hence we think that our position is correct, viz: that these diseases originate in the stomach. The lungs of the ox and those of the horse vary but little in structure. Their stomachs vary very much indeed. The ox chews his food over a second time, and it is very perfectly digested. The horse chews his food but once, and it is not so perfectly digested as that of the ox. The horse has the heaves—the ox does not. We throw these hints out for phthisicky folks to think of at their leisure.—*Maine Farmer.*

ANCIENT SPINNING WHEEL.

E. H. Pease, Esq., of this city, deposited in the Agricultural Rooms, a Spinning Wheel, in good preservation, received from Mrs. Elinor Fry, of East Greenwich, who gives the following interesting account of it:

"I will, with pleasure, give thee the history of the curious spinning wheel, as far as I know. In 1754, the wheel came to my father's house, in East Greenwich, from Narraganset. Whether it originated in England or Ireland, I cannot say, but it had been in America near one hundred years when it was brought here. In 1771, I, Elinor Fry, spun on the said wheel one piece of lawn handkerchiefs, 12 in number, as good as those imported from England; the ladies here were emulous to excel, and were so patriotic, they chose the fabric of our country, and toiled with their own hands to spin lawn for their dresses, proclaiming independence of Great Britain, for some of us were so happy as to have farms of our own to clothe us; and our fathers encouraged us to wear such as we made. The identical wheel spoken of, Samuel Fry, my father, gave to me, and I, Elinor Fry, presented it to Erastus H. Pease, to hold or sell, as he pleases.

In regard to the spinning party, it was done in 1789, to celebrate the Federal Constitution and to encourage manufacturing in the State of Rhode Island. 21st of April, 1789, 48 patriotic ladies assembled at the court house in East Greenwich, with their own wheels, their own flax, and for their own use spun 178 skeins of linen yarn in one day, from sun-rise to setting at night; one lady spun seven skeins and one knot, it being the most spun by any one of the company; there were several that spun six skeins in the same time; the

usual custom was two skeins in one day for each to spin. There was a festival in Providence, in 1790, where there was a splendid ox roasted, called the Federal Ox. I was there at the time, and saw the ox while roasting. This may not be interesting to thee, so I will omit saying more on this subject. I herein sign my name, this eighth day of the 4th month, 1853.

ELINOR FRY."

Journal of the N. Y. State Ag. Society.

OUR COUNTRY'S AREA.

From a table prepared by Col. Abert, of the Topographical Engineers, we find the total territorial extent of the United States as follows:

	Square Miles.
Area of the Pacific Slope, or of the region watered by rivers falling into the Pacific.....	778,206
Area of the Mississippi Valley, or the region watered by the Mississippi, Missouri and their tributaries.....	1,237,311
Area of the Atlantic Slope, proper.....	637,190
Area of the Atlantic Slope, including only the waters falling into the gulf of Mexico west of the Mississippi.....	186,646
Area of the Atlantic Slope, including only the waters falling into the Gulf of Mexico east of the Mississippi.....	146,860
Total of the Atlantic Slope, or the region whose waters fall into the Atlantic.....	967,576
Total area of the United States and their territories.....	2,961,153

No one can look over these figures without being impressed with the exalted destiny that awaits our country. Already our empire equals in extent the Roman in its palmyest days, and all this immense territory and seacoast is guarded by a standing army of only 12,000 men and 76 ships of war.

The next census and measurement of the Republic may include Cuba, the Sandwich Islands, Sonora, Lower California, and perhaps the Canadas, giving a population of nearly Thirty-Nine Millions, and a territory of Seven Millions of square miles. The period between 1840 and 1850 added Texas, New Mexico and California to the Union, comprising a million square miles. The next ten will not fall behind its predecessor in the accomplishment of "Manifest Destiny."

For the New England Farmer.

FEED OF STOCK.

MR. BROWN:—The criticisms in your last paper, upon the comparative value of articles as food for stock, are well calculated to restrain crude and inconsiderate statements. I am not surprised at all, that Mr. H. should apprehend that the "printer's devil" had been poking fun at him, when a pound of carrots is estimated as only equal to $\frac{1}{2}$ of a pound of hay, or 1-12 of a pound of meal. Conclusions like these must result from a partial and imperfect view of the subject. Next to actual experiments in feeding,—the price of these articles in the market, may be taken as evidence of their value. If, year after year, ahewd, practical men are found growing carrots, and feeding them to their animals the presumption is very strong, that they have value in them. I would as soon rely upon such results, as any chemical analysis. That the general condition of animals is improved by feeding on carrots, and that they are a palatable feed, there can be no doubt. How far they increase the quantity of milk, is a question on which different opinions are entertained. When the model farm for Middlesex shall be es-

established on the plains of Concord, where the first germs of freedom were moistened with blood, under the supervision of the intelligent observers there situated, it is to be hoped more light will dawn on this and other subjects.

Feb. 28, 1854.

For the New England Farmer.

COUNTRY FARMERS AND CITY MECHANICS.

MR. EDITOR:—I am one of that great multitude of farmers' boys, who, early imbibing the notion that farming is less profitable than most other kinds of business, learn a trade, and finally find themselves city mechanics. A grand good position to look back from, and which I have long wished some one of our class, more competent than myself, would improve for the benefit of our successors; for it seems that farmers' boys, and girls too, are still looking to the shops and stores of the city, as a refuge from the poverty of the farm.

On looking back from this stand-point upon my past experience and observation, the first conviction which occurs to my mind is, that farming is *more*, and other business is *less* profitable than they *seem* to be. I have lately received a letter from a brother, who not "taking to a trade" now owns a small farm. Alluding to my old notions of the unprofitableness of farming, and to the high prices I now pay in the city for all kinds of provisions, he says, in the familiar style of family correspondence:

"On looking at the amount and variety of articles consumed and worn out by farmers; the interest most of us pay when we first begin in the world; our carriages and harnesses; our clothing, food, &c., for ourselves and little ones, I think there must be profit somewhere in farming, greater than you used to allow. Look into our buttery, our clothes-press, our cellar, our barn, and pig-pen,—nothing to brag of, as you know,—but yet enough if all were put into a bill to make quite a sum. If farmers were to give their farms credit for rent and everything you pay money for, which their farms produce, they would need something of an income to foot the yearly bill—and would find out, I believe, that farming is not quite such poor and unprofitable business as some of us think it to be."

Farmers handle but little money, and hence are apt to look upon the weekly wages of mechanics as large, which will barely supply a family with the necessaries of life. I recollect my feelings, when a boy, on hearing of a mechanic who received ten dollars a week in the city. I could hardly imagine what one man could do with so much money; or, when it was possible for others to put themselves in the way of getting such wages, anybody should be willing to stay and "gee-haw" oxen on a farm at fifty cents a day! Well, I left the farm, and have reached the goal of my boyish ambition. I am in Boston, with ten dollars a week!

But how much better off am I, after all, than most of my schoolmates are, who were compelled to work for twelve to fifteen dollars per month, while I was receiving thirty to forty! Little if any; and why? Because "circumstances alter cases." Before I kept house I had twelve to fifteen dollars per month to pay for board, washing,

mending, and other unavoidable incidentals—a very important item that farmer-boys seem never to take into account,—and then, when sick, my watcher's, nurse's, doctor's, apothecary's, boarding-house keeper's, and washerwoman's bills were all made out on the ten-dollar-a-week system, and took off the dollars almost as fast as my pulse beat in a high fever. While the farmer-boy who works by the month is boarded, washed and mended, "in the bargain," and, if sick, is taken care of at the lowest figure, or carried home to be nursed by his mother and sisters.

If the editor thinks the foregoing remarks worth publishing, I may take time to say something upon the relative advantages and trials of supporting a family upon a farm in the country, and on ten dollars a week in the city.

A CITY MECHANIC.

Boston, March 6, 1854.

TENACITY OF LIFE.

Among the lower animals tenacity of life is the most remarkable in the polypi; they may be pounded in a mortar, split up, turned inside out like a glove, and divided into parts, without injury to life; fire alone is fatal to them. It is now about a hundred years since Trembly made us acquainted with these animals, and first discovered their indestructibility. It has subsequently been taken up by other natural historians, who have followed up these experiments, and have even gone so far as to produce monsters by grafting. If they be turned inside out, they attempt to replace themselves, and if unsuccessfully, the outer surface assumes the properties and power of the inner, and the reverse. If the effort be partially successful only, the part turned back disappears in twenty-four hours, and that part of the body embraces it in such a manner that the arms which projected behind are now fixed in the centre of the body; the original opening also disappears, and in the room of feelers a new mouth is formed, to which new feelers attach themselves, and this new mouth feeds immediately. The healed extremity elongates itself into a tail, of which the animal has now two. If two polypi be passed into one another like tubes, and pierced through with a bristle, the inner one works its way through the other and comes forth again in a few days; in some instances, however, they grow together, and then a double row of feelers surround the mouth. If they be mutilated, the divided parts grow together again, and even pieces of two separate individuals will unite into one.

NEW MATERIAL FOR PAPER.—We have just examined, says the *Baltimore Sun*, several samples of paper made of reeds or cane, of a species which grows in great abundance in our southern States; and also a sample made by the same process from white pine shavings. In such an age of invention as this, incredulity is not to be tolerated; therefore we submit with the best possible grace even to the white pine. The reed paper is quite a promising article. Another sample composed of reeds and reeds, one-third of the former and two-thirds of the latter, is quite a fine article, and its value is estimated by the makers equal to that of reeds worth 12½ cents per pound. The paper from pine shavings is designed for wrapping or envelope pa-

per. It was first bleached and then colored for that purpose, and is valued at 12½ cents also. The inventors of it, B. A. Darendor and Henry Lowe, of Baltimore, are sanguine that with proper apparatus a paper can be manufactured of reeds or wood, as the main staple, by their process, worth 12½ to 16 cents, and at a cost not exceeding 6½ cents per pound.

For the New England Farmer.

CHEAP EXPERIMENT IN DECOMPOSING BONES.

The value of bones as a manure, ground or pulverized, and more especially dissolved and formed into super-phosphate of lime, is now just beginning to be appreciated by practical agriculturists in this country, as its beneficial effects, upon root-crops particularly, have come to be known by experience.

Formerly bones were only regarded among us, as a nuisance, to be thrown in the street, or to be dumped into some hole with the skeletons of old tin pans and kettles, broken pots, &c.;—and the carcasses of defunct cows and horses were carted away into some lonely swamp, or distant place in the wood; and not till they had been made an export, for several years, from this country, by our English brethren, did it occur to the American cultivator that "old bones" could be of any possible use.

But when our good farmers began to feel that the saving of manure was a thing of such vast importance, and that the barn-cellar—as my old grandfather used to say to his gardener—was their "jewel box," then they began to look around them for material; and leaves, sods, ashes, pond-mud, peat-earth, oyster-shells, bones, &c., came in use to encourage and aid a more enlightened economical farming.

Yet still, a great obstacle in the way of the more general use of bones, is the expense and difficulty attending their pulverization or decomposition. However prudent a farmer may be in collecting and saving bones, skeletons and carcasses, if there is no "bone mill" anywhere within a dozen or twenty miles of him, he is no better off for manures than before; as it is well known, that half a century may pass over them in an unpulverized state without very much of their nutritious qualities being extracted, even during such a lapse of years. Again, the expense and laborious care of decomposing them with sulphuric acid or vitriol,—especially to the majority of farmers, who are not accustomed to such delicate jobs as handling sulphuric acid, and making nice experiments with chemicals,—discourage the mass of them from attempting to go into the manufacture of "home made super-phosphate of lime."

Hence it becomes an important inquiry, especially as this manure is found to be so exceedingly valuable, whether some cheap and easy way of decomposing bones cannot be discovered, for the benefit of the common farm.

Without alluding to other experiments, in regard to dissolving bones in strong lye, &c.,—that have been partially successful, I propose, here, in a few words as possible, to describe an experiment, made on a small scale, with bones and horse manure, that may lead many readers to still further experiments, and at length end in some important practical result.

An intelligent and thoughtful neighbor of mine, Mr. EDWARD WILLIS, a soap manufacturer—whose father has taken a great deal of interest for many years in agriculture, especially in the application of ashes to light worn-out lands, and from whom our great neighbor, the late DANIEL WEBSTER, used to procure hundreds of bushels of ashes a year for similar lands—recently made an experiment of this kind. Taking a quantity of bones, none of them perhaps larger, and most of them smaller, than a man's two fists, he made a good layer of fresh horse dung, on which he placed a layer of bones, then another layer of manure, then a layer of bones, and so on, to the top, covering the heap over well with the dung. It lay somewhat longer than he intended, and was allowed to become to some degree fire-fanged, but the bones were utterly decomposed, disintegrated and dissolved. So that the whole heap had become a homogeneous mass, and you could not even detect any bones in it. Now, why would not this manure be fully equal to ground bones,—be nearly or about as good as any of the super-phosphates,—even the "Improved Super-phosphate" of our delightful and scientific friend, Prof. MAPES, which I have found so very valuable, especially in its application to my root crops, pear trees, &c. Mr. WILLIS thought in a further experiment, that he should either manage to moisten the heap, or else not allow the mixture to remain so many weeks undisturbed; and I suggested to him the advantage of covering over the whole mixture at the very commencement of such experiment with charcoal, peat earth, plaster or some absorbent of ammonia, and then after the decomposition of the bones had been effected, to mix it in with the rest of the heap.

I have thus written out an account of this experiment, so very successful as far as dissolving the bones is concerned, as a matter of suggestion to others, and with the hope that it would induce some of our practical farmers, at a time of leisure, to try the same experiment, and after they have made application of the manure thus manufactured, to give to their brethren through the medium of the *New England Farmer*, an account of its fertilizing effects as compared with other composts.

JAMES RICHARDSON, Jr.

Kingston, Feb. 11, 1854.

REMARKS.—Capital. This will be the means of cleaning up many a door-yard, as well as doubling the turnip crops.

For the New England Farmer.

PROFITS OF SHEEP.

MR. EDITOR:—Having a short time since seen in your paper a notice of the great income of the Vermont sheep, I have thought it might not be amiss to say something of the income of sheep in Maine. The income of my 18 sheep, that I wintered last winter, has been \$90.80, the present year. In April, I sold one sheep that did not have a lamb, for \$4. For the wool sheared from the other 17, I received \$31.80, having 40 cents per pound. For 24 lambs, I received \$55. My sheep number the same as last winter, keeping one of my lambs to supply the place of the sheep I sold.

JANE A. MORRISON.

Parsonsville, Me., Feb., 1854.

For the New England Farmer.

COOKED AND UNCOOKED MEAL.

MR. BROWN:—I received a letter from you some time since asking for information in regard to my experiments in feeding swine on cooked and uncooked meal. I have recently tried no experiment, but did in 1842 feed five swine on cooked and uncooked food for about 100 days for which I received a premium, and the result was published in the transactions of the Essex Agricultural Society for that year, which I presume you have in your possession. The result was rather in favor of the uncooked meal, and different from what I expected it would be, as I had previously been accustomed to scald the meal, thinking that it was better. I am aware that the result of different experiments is not always the same, still I was pretty well satisfied with the experiment, as I fed them nearly all the time myself, personally, and was sure that there was no mistake or misrepresentation. I have also had some experience in feeding swine on different kinds of roots, such as potatoes, beets and turnips, also on apples. Potatoes are unquestionably the best of any roots, being very palatable when cooked, and were formerly a profitable crop to raise for that purpose. But they are now so degenerated and subject to disease that the scanty crop is more profitable for the market than for swine.

Turnips and beets when cooked and mixed with meal will do tolerably well for store shoats, and some swine may fatten tolerably well on them, but for most swine they are not palatable. And I think for the most part that the corn crop is quite as profitable for swine as the root crop, as there is considerable saving in labor and expense of cooking. I have also used apples, and think well of them in the fall of the year for store shoats, as well as for cattle. In regard to the expense of raising pork, there seems to be different opinions. I was informed by Mr. Phinney some years since, that when corn was worth 75 cents per bushel, pork could be raised for six and a quarter cents per pound. I however, kept an account of the expense of raising pork for one year, while I made about 5000 pounds, and came to the conclusion that it cost at least 7½ cents per pound when corn was worth 75 cents per bushel, and offset the manure for the labor.

Should you like further information in regard to my former experiment, I will forward it to you.

Respectfully yours,

JOSEPH HOWE.

REMARKS.—Whatever Mr. Howe may be pleased to communicate on this subject, will be received with pleasure.

SHADE AND FRUIT TREES.—As the spring of the year approaches, would it not be well to call the attention of towns, in their corporate capacities, to setting trees in the highways? Some of the advantages would be that the roads are not so liable to fill with drifted snow; they would afford shade and fruit for travellers, protect orchards from depredations, and would perhaps yield income enough to pay the expense of the labor and the towns' poor, and have a surplus left.—*Boston Courier.*

NINTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, MARCH 14.

The meeting was called to order by Mr. SIMON BROWN, who announced Col. NEWELL, President of the Essex County Agricultural Society, as Chairman for the evening.

Mr. NEWELL, on assuming the chair, at once introduced Dr. LEE, of Rochester, N. Y., as lecturer for the evening.

Dr. LEE remarked that he knew of no better response to the invitation to address the Society on the subject of Agriculture than to offer a few suggestions intended to promote the increase and diffusion of agricultural knowledge. The intelligent gentlemen before him hardly needed to be reminded of the old truism, that "knowledge is power." There are, however, some well-informed men who fail to discriminate between an increase of knowledge and the mere extension of it to a greater number of persons. It is necessary, to extend any subject, that we be sure of our facts, and that the reasoning from those facts is logical. In the last century, when it was discovered in France, that the sulphate of lime was a valuable fertilizer, a great addition was made to the agricultural knowledge then existing in the world. That was a substantial increase of the professional knowledge of the farmers of that day; but that increase would have been comparatively valueless had there not been called into requisition, means to extend the information to all the farmers of that kingdom and the reading farmers of other nations.

In the first place, we should increase the knowledge we now possess as practical farmers. 2d. We should extend that knowledge, so that the wisdom of each individual may be communicated to all who are pursuing agriculture as a profession.

The value of the press to extend useful knowledge is well known. The farmers of the United States support more agricultural journals than all the world beside. This fact enables us to communicate at once to all who are interested in agriculture, every new fact in tillage which may be discovered. Very little could be accomplished in the way of eradicating the prejudices which retard all progress in reducing to practice improvements in agriculture, or in separating useful facts from pernicious fictions, without the facilities which the press affords.

Not only has science to subdue a thousand unhappy prejudices, but it must devise ways and provide means to give our rural population something better than their muscles with which to till the earth,—knowledge. The great question for educated men to decide is, how they can best enlarge the boundaries of knowledge, so as to add to the wealth and happiness of the millions. Massachusetts ought to contribute a few dollars every

year for the purpose of investigating the resources and properties of her soil, and the varieties and value of its vegetable and agricultural productions. For fifty years it has been known that lime is a most important element of fertility; and during all that time it has been important to ascertain the least quantity of this mineral that will suffice in common soils for all useful purposes. In the county in New York where the speaker lived, the soil contained more lime than the soil of New England; and according to the census of 1850, that county produced 500,000 bushels of wheat, more than was raised in all New England. Does not this fact exemplify the importance of knowing the difference between one soil and another? What is there to prevent the farmers of Massachusetts from comparing tons of their soil with that of the West? Do they not need an increase of their present knowledge on this subject? They may exhibit year after year fat cattle, fine stock and handsome fruit, but agricultural fairs are the least useful of all agencies for the advancement of agricultural science. It requires more profound research than such exhibitions ever witness. A public institution is needed, which shall teach to one class of students all that is known in the rural arts and sciences; and to another, how to interrogate nature, and advance science and art from things known to things unknown. One department should be well adapted to the labor of imparting knowledge to all interested in the subject. The other department should be confined to experiments and analyses for developing new facts in the mineral, vegetable and animal kingdoms. With each of these kingdoms, the farmer has much to do; hence, he should be acquainted with the laws of each; but he can never learn them except by means of associated scientific observations. Few farmers make any useful additions to the science of agriculture; and it would seem necessary, therefore, to employ men whose talents, genius and education peculiarly fit them for such service. Agricultural economy now presents a most inviting field for making important discoveries, and achieving a lasting reputation.

As an illustration of what might be determined by scientific investigation, the lecturer remarked that 100 pounds of wheat or corn consumed a given weight of soil; and he had great confidence in the force of science to determine how much of mould and how much of minerals had been consumed in the growth of plants.

The point to be solved is this; how much of the substance of the soil is absorbed to make 100 pounds of ripe wheat or corn, or other crop? How much of the nourishment of the plant is drawn from the atmosphere, and what and how much from the earth? By proper experimenting, there is no difficulty in ascertaining how plants grow.

If it be admitted that this matter ought to be

studied, as a part of our profession, the question may be asked, how and where should it be studied, and by whom? When it is admitted that any branch of knowledge is worthy of study, then it is also admitted that a school is needed to facilitate such study. An agricultural school is not an end, but a means to attain an end. It is not enough to purchase a farm for experimental purposes. It should be supplied with scientific apparatus, and students, and the public should have a clear understanding of the whole economy and labors of the school, so that no one may be disappointed in the results. The Professors should be thoroughly qualified to discharge their duties. The want of men qualified for such positions, the speaker remarked, has long been felt. There is a plenty of material in the country that may be used to increase agricultural science, but it is a little too raw for immediate use. Before he had had an opportunity of seeing Congress, he had hoped that it would establish an institution designed to furnish a thorough agricultural education to young men, who should become the educators of the whole country—that a national normal school of agriculture might be established to furnish teachers for all the States. It is a poor compliment to republican America that we are compelled to go to monarchical Europe to learn the very rudiments of agricultural science. *Agricultural Physiology* is important to the farmer, but no work on the subject was ever published in America, and but one in England, and that a poor book. Europe does not furnish text books adapted to the wants of an American institution.

It is far more desirable that scientific men should make additions to our knowledge, than labor to extend the present knowledge to the many. The discoveries of Liebig in practical chemistry created a greater amount of interest and resulted in more benefit than could be accomplished by a hundred teachers of old facts. The speaker regarded the increase of knowledge—that is, the development of new facts illustrative of agriculture,—as the point now to be pursued. And how is it to be done? He thought we should unite the highest scientific attainments in the country with the highest practical attainments among farmers. Bring the two together—have them work in concert. The man of science will go astray. Liebig generalized facts prematurely, and the result was he fell into error, and brought rural science itself somewhat into disrepute.

Experiments show that a plant takes but a very small portion of its food from the soil; it draws its chief nourishment from the atmosphere and water. Science has demonstrated that one-half of the weight of all our agricultural plants is nothing but the elements of water, oxygen and hydrogen, and four-fifths of the other parts are carbon, or coal. Nine-tenths of the wood of plants are

water, which falls from heaven and cost nothing. What we want is to study the laws of nature so closely that we shall understand them perfectly, so that we can make one day's labor give us three times as much as it now yields. A seed, in growing, first takes in moisture. There must be a freedom of motion in the germ, and water gives that freedom; there is an absorption of oxygen, on the same principle as we inhale it into our lungs, and that combined with the carbon in the seed, really burns it and evolves heat. If a quantity of wheat is placed in a bin and water added, it grows hot. That heat is the commencement of vitality. If you plant corn on wet ground, prematurely, the ground being moist but too cold, if the seed starts to sprout it rots. If it do not, the roots descend into the chilly ice water beneath, and are checked and the plant may die. This shows the connection between germination, the growth of plants and temperature. It had been supposed until recently that the growth of plants increased in proportion as the temperature was raised, but this opinion has been proved to be erroneous. Corn planted at a temperature 20 deg. above the freezing point in 48 hours gained three grains in weight; raising the temperature to 40 deg. above freezing, instead of gaining in the same length of time from three grains to six grains, it is found that the plant has grown as the square of the increased temperature; and increased to 12 grains. Therefore, the plant increases four fold more than the increase of temperature. The growth of plants is governed by fixed laws, and we should study and obey them.

Taking up the subject of *Agricultural Meteorology*, the lecturer remarked that he only wished to show that a scientific knowledge of the laws of nature has a direct bearing on everything done on the farm. Study the matter of temperature. Take the western shore of England. They cannot grow corn there, because the climate is too cold, but they grow wheat; yet if there happens a cold season, their wheat does not ripen. Last year the season was remarkably cold throughout western Europe, and the lecturer said he had prophesied that the crops would be short. He raised last year about 700 bushels of corn, but instead of selling it when ripe, he supposed this corn must be worth more, hereafter, because the season had been unpropitious in western Europe, and the crop there must be a short one; grain will therefore go up, whether there be war or not; that corn is now worth 90 cents to \$1.00 per bushel. These laws, if understood, can be turned to a practical account, and if the farmers of this country should urge the Smithsonian Institute to turn its attention to agricultural meteorology, it would prove of great benefit to them.

Referring to the matter of making inquiries by letter for information on a subject was very unsatisfactory. Old facts are returned in plenty, but

new ideas are not to be obtained. Take the dairy, for instance. He never could get an answer to the question "How much butter ought a thousand pounds of good timothy hay to produce?" or, "How much pork ought 100 lbs. of corn to produce?" Both of these questions are important, and might be easily settled, and so of others.

Agricultural engineering, too, demands attention. A good work on this subject is needed, and yet there is no one who has treated of engineering in connection with agriculture. We need to know how much water a piece of ground will contain, how much of it is evaporated, and how much absorbed by the plant. Land will evaporate 40 inches of water, where not 30 would fall during the year. Now if a man needs all the water that falls on his farm, why let it run off in the freshets? It may be retained to produce crops. The evaporation of water is a curious thing. It is done simply by the action of heat expanding the water and makes it lighter than the atmosphere. Solar heat is the true source of all the water power in the world. If there were no evaporation, there could be no streams flowing from the mountains. Sunshine is the great agent in causing plants and trees to grow, and is the source of all muscular power.

Sunshine sustains all the vital and mechanical power in the world. Farmers have not studied this power, and yet they can make it earn them money. The lecturer said he did not propose that every farmer should devote his life to such researches, but that a few of the best men of the nation should be employed for the purpose, while the farmer would reap the benefit. Will it be said that the State of Massachusetts cannot employ five men all their lives? Supposing each wants a salary of \$3000 a year? that would be but \$5,000 yearly expense. We are indebted to Europe for nearly all our scientific information; we have no agricultural science which we can call our own. He had more confidence in the action of Massachusetts in this important matter than in any other State because she has already done more for education.

Turning to *agricultural chemistry and geology*, the lecturer remarked that chemists have not generally been practical men, and have not looked at the subject from an agricultural point of view. They operate on 100, or perhaps 1000 grains, in making an analysis of soils, but he thought that amount too small. If he desired to ascertain the difference between the soils of western New York and Massachusetts, he would take a cubic foot of each.

It is a universal law of nature that all animals and plants give back to the earth and atmosphere an exact equivalent for the food which they consume. Supposing they did not, they would, by impoverishing the earth, finally become extinct.

Man is the only animal that impoverishes the land that feeds him. If you take a million bushels of wheat from Ohio and consume it here in Massachusetts, no equivalent is returned to the soil of Ohio for the matter taken from it, and the land is impoverished to that extent. The Erie canal conveys a million tons of nutritive matter from the lands of the West, where it carries one ton back to restore fertility. We are converting the most fertile lands in the world into a barren desert by this means; this is our wisdom.

Dr. LEE concluded his highly interesting lecture by asking why farmers, although in a majority in the country, did not do anything to elevate and improve their profession? His remarks were listened to with earnest attention, and at the close, Mr. PROCTOR, of Danvers, moved that the thanks of the Society be presented to Dr. LEE for his able lecture, which was seconded by Mr. SPRAGUE, of Duxbury, and unanimously carried.

The subject for the evening's discussion—*Farm Stock*,—was, on motion of Mr. PROCTOR, postponed until next Tuesday evening, when a lecture will be delivered thereon by Mr. HOWARD, of the *Boston Cultivator*, and the time of the meeting was taken up until the adjournment by a discussion of the subject of experimental farms, and agriculture generally, which was participated in by Messrs. PROCTOR, SPRAGUE, BROOKS, DODGE, BUCKMINSTER and Col. NEWELL, the Chairman. Dr. LEE also took occasion to say that by his remarks in regard to agricultural science in this country, he meant that we did not do anything to advance it, did not cultivate it as we cultivate the soil.

THE CULTURE OF ONIONS.

MR. EDITOR:—My success in raising onions has led many to ask "how it is done." They say the maggot and the large brown worm have been so destructive that they have done trying to raise that valuable vegetable. In answer to such inquiries permit me to reply.

There are at least six kinds of onions. But they are of the same species. The leek, the garlic, the hill-onions, the top-onions, the bed and the silver onions. From the fact, that whenever onions have been found growing wild, they are always found most plentifully and most flourishing in muck soil, I have taken the hint to prepare my onion bed with a plentiful supply of muck first put into the hog-yard, and then well mixed with common soil. If I plow the ground, I take care not to have the ground too light. As the roots of onions do not go down deep, they will not stand drought so well in light as in more common soil. Besides, onions bottom better where the ground has been rotted or hard trodden.

I cultivate the "top-onion," for several reasons. All black seed onions are slow to come up. The weeds get the start of them and then you are obliged to get down on your hands and knees and weed with your fingers. Then warm weather has come on and the maggot fly commences with the young plant and destroys it. And the black seed

onion is so late that the black worm is just in season to bite off the tender stalk and so devours the onion.

But plant the "top-onion" seed, which is already a little onion, you may get them well growing in April. They come up immediately, so that you may hoe them twice or more before weeds appear. And before maggot or worm time, the onion has got the ground by possession. When the weeds appear, you may march right along with your hoe and go over with a bed large enough for twenty bushels, before breakfast.

The reason why maggots have ever destroyed the top-onion is, that they were planted too late. They should be planted as soon as the snow and frost disappears. Some put out in the fall and do well. I have never tried it. The top-onions on good ground are large as any. They are sweeter and more juicy than other varieties, and can be raised almost as easy as potatoes.

I have given away and sold seed for several years; and when the experiment has been fair, all have been satisfied. I intend to give away and sell before April, twelve bushels of seed. S. MORGAN.

Bristol, Jan. 13, 1854.

P. S.—Perhaps there is no vegetable more agreeable to the stomach of a dyspeptic, than fried or boiled onions.—*Middlebury Register*.

CONCORD FARMERS' CLUB.

THURSDAY EVENING, FEBRUARY 9, 1854.

Reports being called for, an excellent one on *Root Crops* was made by ELIJAH WOOD, Jr., and another by one of the members, which, being much shorter, we give in this connection, on

FARM BUILDINGS.

The first difficulty, and one which cannot ordinarily be overcome, in the arrangement and convenience of Farm Buildings, is the fact, that most persons enter upon the farm where the buildings are already constructed. They are too good, perhaps, to be pulled down, while they are not convenient in their location or arrangement.

He who enters upon a farm entirely free from buildings, ought to regard as the first thing, the convenience of their situation; and to this end must be considered the best shelter, feeding and watering of live stock; the carriage of the crop, and of manure, and the preservation of the produce. He will not, probably, be able to combine all these advantages, but must seek to obtain as many of them as possible.

The relative location of the several buildings to each other, is the second important consideration. I would not have them connected with each other, for several reasons: first, on account of health, as it is always difficult to prevent the odors arising from the styes, sink drainage and barn cellars from penetrating the dwelling. Second, on account of the liability of the loss of the whole by fire, if it chances to originate in any one of them. And thirdly, the impossibility of giving the dwelling that air of neatness, order and health, in all its

surroundings, when the out-buildings are compactly placed near the dwelling-house. But no general rule can be laid down as to how far apart the buildings should stand; that will depend upon various circumstances, such as the nature of the ground, the supply of water, and the particular kind of business for which they are to be used.

A moderately sized, but *well-finished* dwelling house, I should strongly recommend. A large house, partially finished, has an unthrifty appearance to the traveller, is cold, inconvenient and comfortless to the family, and is a reproach to the owner, if he planned it himself. There is one room, however, in the dwelling of every farmer, of which I will speak, because if he does not find comfort and convenience there, it is quite likely they will not be found on his premises anywhere:—that room is the kitchen—the place where cluster the family and the affections, as well as the bountiful products of the farm; it is not the outer court of home, but the centre of home itself, on the farm, and the index either of the prosperity or decay of its occupants. The kitchen should be ample in its dimensions, and supplied with all the nameless conveniences which are of more consequence than the aid of foreign “help.” Dry wood and soft water are indispensable, and should be near at hand. In this climate, the kitchen should be on the south side, but protected from summer suns by shade or piazza. In such a kitchen the graces will bloom as well as the posies, and virtues will rise as well as the buckwheat cakes; the presiding genius, whether over the stove or over the tub, will be *good nature*, and the children will remember the dear old spot, where they first cracked jokes and nuts, or perhaps kissed a pretty girl while playing blind-man’s-buff, as the sunny place of existence, and ever turn to it from the turmoil of life, with unabated delight.

The corn-crib or barn should be separate from the other buildings—but with this exception I would have all the others under one roof. The rooms for carriages, implements, &c., should be separated by tight partitions. Horses, oxen, cows and young cattle, should each have their particular places assigned. There should be a good cellar for roots under the barn, into which, if sufficiently large, the wagons and carts might be wintered. If I could avoid it I would have no manure under the barn. With such an arrangement, and the possession of a common share of philosophy and good nature, the farmer ought to be a happy man.

Mr. JACOB B. FARMER then presented a bottle containing some 30 or 40 worms, some of them half an inch in length, somewhat resembling canker worms, though not having the same motions. The head is black, the body of a brownish green, and sufficiently transparent to show an internal

black spot in the centre of the abdomen; the belly paler than the back. The extremity or tail, light-colored and furnished with two horns above, and two feet by which that part was slightly raised when the worm was in motion. By lamp-light, we could discover no other feet, or stripes, either lateral or longitudinal. Mr. F. found these worms in large numbers on the snow, in a state of great activity, and not only upon the surface, but an inch or more below it. The snow lay upon a reclaimed meadow, the ground bare near it, but no trees or bushes within twenty rods. When we saw them, they had been confined eleven hours, but were still as active as are insects in June. What are they? Where did they come from?

The President then announced the subject for the evening’s discussion, viz.:—*What are the best methods of raising, keeping, and feeding Poultry and Swine?*

Mr. C. W. GOODNOW said the rearing of poultry had become fashionable, and he considered it a fashion which afforded many conveniences, as well as a pleasant occupation. He had instituted experiments with some degree of exactness, and found that it takes 4-5 of a quart of corn to keep a hen one week, making $1\frac{1}{4}$ bushels a year; hens, on an average, cost 37 cents, which makes the hen and keeping cost \$1.62; a hen will lay on an average, 82 eggs, which, at 15 cents a dozen, will give \$1.03 as income. Now add 37 cents as value of the hen, and you have a remainder of \$1.40, making a loss of 22 cents on each hen.

But in order to illustrate the subject more fully, he had taken pains to call upon some of his young friends, who, he knew, were largely engaged in rearing poultry and kept precise accounts, for statements which would be more satisfactory than any he could make himself. In response to his inquiries, JAMES A. BARRETT has furnished him with the following statement:—

SIR,—At your request I have looked up my account of the expense and income of my fowls for the year 1853.

I commenced the year with ninety fowls; but in the course of the first nine months, I reduced them to thirty-five.

They laid during the year six hundred and sixteen dozen of eggs. I have raised about one hundred chickens. Their food has been mostly damaged corn and wheat, oats, sweepings of mills, meat, &c.

The receipts, including eggs, chickens, &c., after reserving enough to make up the original number of ninety, amount to.....	\$157.71
Manure, or guano, estimated at.....	20.00
Making in all.....	\$177.71
Cost of keeping.....	\$106.95
Leaving a net profit of.....	\$70.76

Mr. BARRETT’s statement, I think, is somewhat incomplete, and calculated to give too large an idea of the profit of raising hens. I would, however, recommend to every one who conveniently

can, to keep hens—by so doing they may have at nearly all times, chickens fit for the table, and fresh eggs. Another young man who is interested in the subject, has sent me the following account:—

Statement of the profits on poultry for the year 1853-4.			
Received for 265 doz. eggs sold.....	\$50,75		
“ 36 pairs chickens sold.....	34,06		
March 1, 1854. On hand 46 fowls, worth			
50 cts. each.....	23,00	\$107,70	
Expenses, for corn.....	\$9,91		
“ cobmeal.....	8,77		
“ buckwheat, oats, meat, &c.....	8,47		
On hand, March 1, 1854, 46 fowls, worth			
42 cts. each.....	19,32	\$46,47	
Net gain.....		\$61,23	

Concord, March 9, 1854. J. B. BROWN.

Mr. JOHN RAYNOLDS said he thought Poultry and Swine comprised an important part of the farmer's stock; he spoke of the origin of fowls, of the value of different breeds, and thought those of a medium size, all things considered, are the most profitable, and our yellow-legged common fowls are not excelled by any for the table, and perhaps not for laying; he spoke of the amount of poultry in the Union as making an item of great national wealth, amounting to no less a sum than \$20,000,000 annually! The State of New York alone had \$2,373,000 value in this class in a single year. The amount of sales of poultry at the Quincy Market, Boston, for the year 1848, was \$674,423,00, and the eggs sold in and around the same market, during the same period, amounted to 1,129,735 dozen, making the amount paid for eggs at that market \$203,352,30, and the sales in the city for that year, not much short of \$1,000,000. There are now many breeds of poultry among us, and many opinions respecting their qualities and profitableness. The larger kinds make a stately appearance, but are more expensive to keep, and I have strong doubts whether the quality of their flesh, or even their eggs is as good as of the smaller kinds. There are many of the *fancy breeds*, as they are called, that are quite ornamental, as well as valuable layers. Most of these, however, have blue or slate-colored legs which are generally objected to by epicures. The fowls most sought for at present are the *Brahma Pootra*, *Golden Poland*, *Bolton Grey*, *Black Spanish*, *White*, *Red*, and *Black Shanghai*, *Chittagong*, and *Cochin China*. Mr. Bennett, in his treatise on Poultry says there are four important requisites to success in the management of fowls—

1. That they have ample space.
2. Thorough ventilation.
3. Perfect cleanliness, and
4. A variety and sufficiency of good food and pure water.

Mr. JOHN B. MOORE, President of the club, said he believed the raising of poultry might be made profitable as that of any other stock or crop

of the farm, according to the amount of capital invested in it. Fowls are also a pleasant feature of the homestead, one in which all the members of the family feel an interest, so that while they gratify by affording a pecuniary profit, they afford enjoyment by their appearance, social habits and attachments. A year or two since he erected a building for fowls and enclosed an ample space for them to range in and had taken pains to keep an exact account of profit and loss.

For the two months of January and February, 1854,	
he valued the fowls at.....	\$37,30
Keeping the same.....	13,13
Use of hen-house.....	2,00
	\$52,43
He sold 97 doz. eggs for.....	\$24,25
Sold fowls for.....	7,35
Value of fowls on hand.....	34,90
Making.....	\$66,50
Deduct cost.....	52,43
Leaving a profit in two months of.....	\$14,16

These fowls had not had the range of the barn and yard, but were strictly confined to their own premises, for which reason he doubted whether they would show so favorable a return, as those would running at large, other things being equal. The average cost of keeping he had ascertained to be $3\frac{1}{2}$ mills per day.

The question for the next evening's discussion is—*To what extent would ornamental gardening be made profitable to the farmer?*

For the New England Farmer.

A NEW KIND OF FENCE.

Dr. C. B. GREENE, of Windsor, Vt., has introduced into this region a process of kyanizing wood, with *blue vitrol*, so as to render it very durable. He takes stakes, (ash, elm, oak, or any suitable wood) $5\frac{1}{2}$ feet long, and steepes 2 feet of the sharpened end till *thoroughly soaked* in a solution of blue vitrol. One lb. of vitrol to 40 lbs. water is his rule. These stakes are then driven firmly into the ground, about 15 inches. The tops are then brought into a straight line, and a strip of board 4 inches wide, placed upon the top of the stakes, and nailed with one nail to each stake. The stakes are 8 inches apart. Dr. G. affirms that after paying 24 cents per rod, or \$2,40 per hundred, for his stakes, he can pay all other cost upon such a fence and hire it made at 26 cents per rod, or at 50 cents per rod, the whole cost.

By experimenting upon a piece of *basswood* board, $7\frac{1}{2}$ years since, which he placed in the ground then, where it has remained perfectly sound to this time, Dr. G. is of opinion this fence will be very durable, and as its cost will be even less than 50 cents per rod, to farmers who can cut their own stakes, it must eventually be a very common kind of “dividing line.”

Among Dr. G.'s advantages over common fence, he says cattle and sheep can't get through it, horses won't jump it, hogs will go a good distance round, rather than climb over it, and a *lazy man* can't set in the shade of it. G. F. NUTTING.
Chelsea, Vt., 1854.

For the New England Farmer.

WHAT A GARDEN SHOULD BE.

Having reviewed somewhat hastily the general innate love for gardens and their accompaniments, together with their benefit to man, it will be well before describing any form or forms to go back a little, and try to learn what has always constituted a garden. The first of which we have any knowledge, is the garden of Paradise, and whether a minute description would have been unworthy Holy Writ or not, we do not know anything of the arrangement of its surface; but as flowers and fruits were spoken of promiscuously, and as it was one of nature's own planting and arranging, it is not unreasonable to presume it was of the kind to which common consent has affixed the term natural, owing to the absence or concealment of art, in contradistinction to the artificial, where art is ever made prominent, and where we do not so much admire the beauties of nature, as the inventor's genius:

Man did not long possess this Paradise, and was obliged to make gardens for himself; at first, at least, he had too much to do to get his living to give any time to the beautiful, and consequently gardens are mentioned again only at a much later period. In later times there were the gardens of Babylon, with their pillars and terraces; here art was most distinctly seen; the natural and beautiful slopes were eschewed, and rather than see and own beauties of surface, and vegetation that were free to rich and poor alike, the Babylonian aristocrats mounted up in the air, on high pillars, terraces, which they covered with a few inches of earth, and managed to keep in a moderate state of culture and vegetation by unwearied care. Such gardens, doubtless, gave the city a very elegant appearance from a distance, but could be a source of personal gratification to very few. It is reasonable to suppose, that then, as now, wealth did not, by consequence, give an appreciation of the beautiful, and doubtless many happy cottagers had their little borders filled with beautiful flowers and rich fruits which gave to their hard-working owners more zest and pleasure, than all the luxury wealth could impart to its seated possessors.

Nor is the Bible the only book that tells of the gardens of antiquity: Homer describes the garden of Alcinous, which was to him the most magnificent affair the world could conceive. How magnificent we should have thought it, we can judge when we know it was a four-acre lot fenced in with a high green hedge, that enclosed a fruit, flower and kitchen garden, all mixed together; that it was laid out in straight lines and right angles, and enlivened with an occasional statue.

The Roman style copied closely the Grecian, with the addition of labyrinths of paths and trees, grottoes and caves, in rocks that were transported for miles to ornament the grounds; on the sides of the path were men and animals, cut out of box and yew trees, statues and fountains; and amongst the flower beds, round and oval fish-ponds; all as far as might be from the beautiful, luxuriant nature of Italy. They cared not so much to develop nature, as to display the evidences of their own wealth.

In later times we find the stately gardens of Versailles, and other European cities, uniformly modelled by the most artistic hand, and to a great

degree copies of those I have described as Roman. It was reserved for England to sublime out of the whole mass of artificial gardening, a truer and more natural style.

I have not attempted to give the exact steps, or to delineate all the varieties of gardens and gardening; but to show how slowly man progressed, after being ejected from Paradise, to the true appreciation and reproduction of the best natural effects.

But few are insensible to the beauties of flowers and trees, or the grander charms of the wide-spread landscape, combining mountains, hills, valleys forests, rivers, lakes; or the quiet seclusion of the narrow dell, or the harmonious combination of grass and trees; and as men became more accustomed to analyze their likes and dislikes, and the reasons for seeking or neglecting certain objects capable of giving pleasure or its opposite, they asked themselves why they still went to the woods and fields to admire nature, and revel there in her beauty of color, and luxurious abandon, and yet produced at enormous expense in their cultivated grounds nearest home, and most often to be gazed upon, the very opposite of that they so much loved; and why they might not rather have just these natural charms for the same money, and be enabled to enjoy at home, what otherwise they must seek abroad.

Such a spirit soon introduced a more rational system of things, and founded the natural style of gardening.

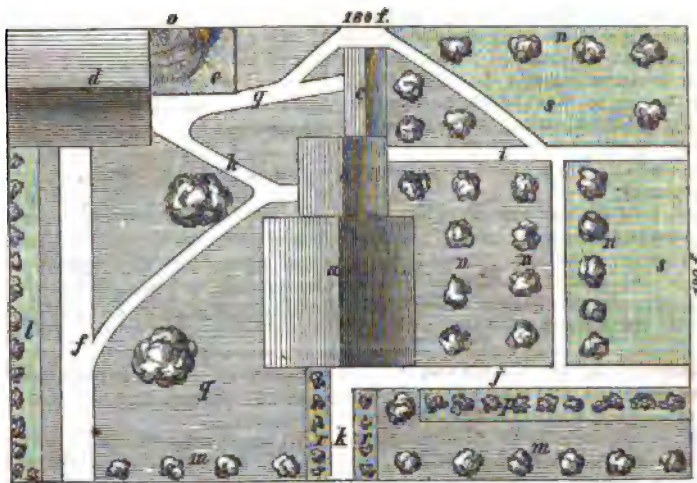
All who have followed me in my narrative thus far, will agree that this result was very desirable, but unfortunately only to be enjoyed and practiced by the owners of extensive estates; and they particularly who have but a small piece of ground adjoining the house to be devoted to flowers and ornament, whilst they admire the change, will deplore the necessity which from narrowness of boundary, condemns them to the right-angular and rigid in lines, and the systematic and precise in matters of ornament. Here it will be best to pause a little on the reasons for preferring one or another kind of improvement, before giving any special directions regarding the most desirable changes.

First, it is especially necessary not to confound the idea of beauty with *any* mere conformation of lines and figure; too many who have become dissatisfied with the system of right angles and straight lines have fallen into the opposite extreme, and now twist and turn their paths and walks for no good at all, till they become more ridiculous and disagreeable than the straight. Remember that a chief element of beauty is fitness, and that nothing can compensate for its absence. Instinctively the mind associates the idea of paths with getting somewhere; now if any path seems bent here and there at will, by which the distance is prolonged, the effect is disagreeable; but if it evidently tends to avoid an elevation, a group of trees, or any other natural obstacle, it is at once agreeable and praiseworthy, and if the arrangements on either side are such as they should be, the change for the most direct route is not noticed. Deception is at all times unworthy, but to get the greatest amount of pleasure and beauty is not deception, and if any path or wood is deflected to gain either, no argument based upon deception is applicable.

I am aware that the natural system, as it has been abused, has met with much disfavor, but where easy, flowing lines have been substituted for the rigid, straight and stiff, particularly if accompanied with proper ornamentation, the change is not unpleasant, it will even be specially agreeable. As the proprietors of small places are the most troubled to arrange their pleasure grounds consistently with correct ideas of beauty, I shall treat of the arrangements befitting the grounds of village homes: and the immediate surroundings of the

farm-house, first; because what is true of them, will be of country residences and park-like grounds, on a large scale, and vice versa. As botany teaches, the leaf is the type of the tree.

I subjoin an imaginary plan of the surroundings of but too many homes in New England villages, as they should not be, but are. I wish to show particularly, the farmer and mechanic, that they may have beauty, elegance and comfort, at the same cost with stiffness, awkwardness and discomfort.



Village Homestead as it is—Unimproved.

- | | |
|------------------------------------|-------------------------------|
| a. House. | k. Path to front door. |
| b. Kitchen. | l. Border of Currant Bushes. |
| c. Woodshed. | m. Dilapidated elms in front. |
| d. Barn. | n. Rows of Apple trees. |
| e. Pig-sty. | o. Manure heap. |
| f. Main Carriage Road. | p. Gooseberry border. |
| g. Path from Shed to Barn. | q. Grass. |
| h. Path from Kitchen to Barn. | r. Flower Border. |
| i. Path from Kitchen to Garden. | s. Kitchen Garden. |
| j. Path from front door to Garden. | |

The above wood cut represents a village homestead, hundreds of which, of the same size and shape, or slightly differing, are familiar to all. The land itself is half an acre in size, on which is a house 40 feet square, with L and woodshed of proportionate dimensions; there is also a barn, 40x30; at one corner of the barn, o, is a large pile of manure exposed to the washing and beating of wind and rain; this manure-pile is surrounded by the hog-pen, whose squealing and noisome inhabitants are plainly perceivable by all.

The buildings are all more or less painted; probably white in front, and bright staring red on the back and sides; in some places there are blinds, but in more none, and probably the barn doors are swinging in the wind. Every path is straight, and if it is inconvenient to go around the corners, another path is worn across the grass. f, is the road up to the barn; this road is shut from the main street, by either a pair of bars, or a three-barred gate, generally halting on one hinge. k, is the path to the front door, which also is closed by a gate, commonly composed of pickets, one or more of which are askew, or broken

out. h, g, c and j, are paths through the garden and grass, to and from the house and barn; in every case it is necessary either to go around a long and awkward corner, or cross grass or plowed land to the detriment of all concerned. m, is a row of half-starved elms, from the woods, or perhaps of overgrown and neglected apple trees—affording more suckers and canker worms than apples. s, represents the tillage by dotted lines. q, grass by straight lines. In the grass at the west of the house are perhaps two large elms or other fine trees, which have most likely been disfigured by a barbarous course of scraping with the fruit tree scraper, and a coat of whitewash. At n, n, we have apple or other fruit trees, all of which indicate the absence of a true horticultural skill, and in too many cases, of even the wish for anything better. On the west side is a long picket fence, out of which many slats have been lost, thus accommodating the neighbors or the proprietor's pigs and hens in their friendly visits. Very likely, in homesteads of the better order, the front will be protected by a light, white paling, in perfect repair, and finished at an expense of needless carpenter work, sufficient to

other fences in order. Against the fence on the W. N. and E., there will be, probably, a row of moss covered currant or gooseberry bushes, or perhaps raspberries. On either side of the front walk, *k*, are two borders, *r*, *r*, for flowers, which in some cases will have a few stunted roses and pinks, and perhaps a few roots of phlox or other perennials.

The border, *p*, is filled with some berry fruit, and the whole tilled surface will be more or less covered with fruits, vegetables, and most of all, weeds.

I do not mean to say that this is the only arrangement that would be seen in such a place, for many would evince care and neatness, but I doubt not, many of my readers will have recognized the very place I have been describing, before getting thus far. So much for the unimproved; the next time, I will describe the same place altered by the hand of care and taste.

I have selected a square half-acre from the general habit of cutting up village lands into rectangular shapes, and of course my description and strictures apply equally well to other homesteads of any size and shape, which are managed in the same careless and short-sighted manner.

R. MORRIS COPELAND.

EXTRACTS AND REPLIES.

PRICES OF CROPS IN OHIO.

Corn is selling at this time and place at 40 cts.—wheat at \$1.25—rye 50 cts.—clover seed, \$4.75 a bushel—oats 25 cts.—timothy seed, \$2.00—flax seed, 80 cts.—potatoes 50 cts.—apples, green, 50 cts. per bushel—hogs, gross, \$2.50 per hundred.

HIRAM O. MINICH.

Bucyrus, Crawford Co., Ohio, March 7, 1854.

ASHES—HOLD-FAST IN CATTLE.

NEW SUBSCRIBER, *Derby, Vt.*—The hold-fast, on cattle, is supposed to be occasioned by the old teeth being retained when the new ones are starting, which causes the new teeth to grow out of the side of the jaw. Make an examination, and see if something is not wrong with the teeth. Bathe the parts externally with arnica water.

Ashes spread broadcast on grass lands will prove highly beneficial. Apply them to corn around the hill at the first or second hoeing; scatter them about your apple trees—they are valuable on any crop.

HOW TO APPLY GUANO.

B. L. *Gilford.*—For corn, spread 300 pounds to the acre and harrow in, after pulverizing and mixing with any moist loam; or, if you use other manure, apply a handful of the mixture to the hill before dropping the corn. For grain crops, broadcast and harrow under. For grass, broadcast, and use in a rainy day, early in April. It is more pleasant to use it when mixed with loam.

PERENNIAL RYE GRASS.

JESSE EATON, *Meredith Village.*—The grass you sent is probably the perennial rye grass, though we had not enough of it for examination to feel quite sure about it.

HEMLOCK FOR HEDGES.

H., *Forestville, Ct.*—“Is hemlock of any value for hedges, either for ornament or for making fence?”

Hemlock makes a highly ornamental hedge, when well kept and trimmed. We have never known it used as a fence, and doubt whether it would offer a sufficient resistance against cattle. In transplanting, young and thrifty plants should be used, and their roots, after having been carefully taken up, should not be exposed for a moment to the sun and wind. From the ground, set them at once into wagons or boxes, and cover the roots with light earth, or damp straw or hay, where they should remain until the ground is ready to receive them.

LARGE EGGS.

JAMES A. BARRETT, *Concord, Ms.*—“The two eggs enclosed weigh $\frac{1}{2}$ of a pound each. These, and one more, weighing three ounces, were laid by one of my Shanghai hens in four days. I have found a number since supposed to have been laid by the same hen, that weighed about three ounces.”

R. W. AMES, *Roxbury, Mass.*, informs us that he succeeded in raising, last year, 5170 grains of good sound corn from a single kernel planted!

GUANO.

J. H. A., *Fairhaven, Mass.*—Guano is selling now at \$55.00 a ton—\$2.75 per hundred pounds. There is no necessity for mixing guano with sand or loam, when you are to sow it broadcast, so far as the crop is concerned; but it is more comfortable sowing it. Apply the manure to your plain lands, by all means, in preference to the guano, if you can obtain an ox-cart load for fifty cents, as you suggest. With manure at that price you can raise any crop you please, within reasonable limits.

MEADOW MUD.

DEAR FARMER:—Please inform me through your next number, the best way of preparing meadow mud for a manure for light upland loam.

A SUBSCRIBER.

See *Monthly Farmer*, vol. 5, pages 61, 340, 341. Meadow mud that has been dug out and exposed through the winter would be a good fertilizer, and one which all crops require. The “way of preparing” is simply to make the whole fine, and mingle intimately by turning the heap over.

CONCORD GRAPE—SWEET POTATO.

N. C., *Eden, Me.*—We shall give a full account of the “Concord Grape” in another column, stating price and where it may be purchased. The sweet potato is raised in this State and in the southwest part of New Hampshire. The slips may be obtained in the market at Boston, or you may sprout the potato in a hot-bed yourself. The slips should be set about the first of June, same as you transplant cabbage plants. They are very hardy.

MURIATE OF LIME.

"Is not Mr. Gould's advertisement of muriate of lime, an error, which recommends 300 barrels to the acre? One would think that a pretty strong amount, and if not very cheap, rather expensive as a dressing." G. A. G.

Chester, Conn., Feb. 7, 1854.

Read 300 pounds, instead of barrels.

NITRATE OF SODA—BURDEN GRASS.

To J. W. WEBSTER, North Fairhaven, Mass. The price of "Burden grass," per bushel, is \$1.50—there is very little in market. After making inquiries at several places, where similar articles are sold, we could find no "nitrate of soda," at any price.

A HALF SUFFOLK PIG.

SAMUEL ALDEN, of Lyme, N. H., killed a pig eight months and twenty-two days old which weighed when dressed (exclusive of rough lard) 401 pounds! R. C. B.

Orfordville, 1854.

OLD COLONY SWEET CORN.

R. O. STODDARD, Westfield, Vt.—"I planted this kind of corn last year on the 16th of May; it was in silk the first of August. Gathered some for the table on the 4th of Sept.—the stalks were large and some of them ten feet high, many of the ears being 6 feet from the ground. There being no frost until the last days of Sept., it came to maturity. As an experiment, I pulled the suckers from two rows, and I thought the ears were better and earlier for it, notwithstanding some say 'don't sucker your corn.'"

BEST SEED SOWER.

E. S. ALLEN, Jacksonville, Vt.—"You will confer a favor on a subscriber, and others, by informing them through your very valuable paper, which is the best Seed Sower, now used for sowing carrots."

The best Seed Sower with which we are acquainted is one represented in Messrs. Ruggles, Mourse, Mason & Co.'s Catalogue, and called "Seed Sower No. 2." The brush and cylinder of No. 2, which distributes the seed, go by graduated rows of iron cogs or gearings, which operate simply and uniformly, are durable, not likely to get out of order, and by which the speed of the dropping may be increased or lessened, and large or small seeds sown, in all their varieties, at any desirable distances, in hills or drills. There is a larger kind for use by horse power.

E. INGHAM, Lebanon, N. H.—See vol. 4, page 108, *Monthly Farmer*, for an excellent article on the buckthorn. There is no difficulty, whatever, in cultivating it. Buckwheat or clover may be turned in green, with great advantage, on the light lands you speak of.

IMPROVED POUURETTE.—This article is advertised in our columns. We know nothing about it, never having used it. It may be easily tested by the purchase of a barrel or two for trial.

For the New England Farmer.

CITY RAILROADS—A MODEL STABLE.

BY HENRY F. FRENCH.

One would hardly expect to find in the midst of a great city, much that would be of value to the practical farmer, but during a day lately passed in New York, I chanced to ascertain some facts, which seem worth placing on the record.

By invitation of JAMES S. LIBBY, President of the "Sixth Avenue Railroad Company," which runs from Barclay Street, just in the rear of the Astor House, to Forty-fourth Street, a distance of three and a half miles, I passed over the road and visited the stables of the company, where are kept the four hundred horses, which draw the cars, in which are conveyed annually, for greater or less distances, five and a half millions of passengers.

City railroads are much discussed, now, both in Boston and elsewhere, and probably some statistical information on the subject may not be uninteresting. Again, the exact amount of food required for each animal, and the amount of labor he can endure, ought to be known to every farmer, but unfortunately, the man who cuts his own hay, guesses at the quantity, and lets the boys feed it out, without weight or measure, is not in the precise position to inform us of the expense of supporting his live stock, and on the farm, labor is too irregular to furnish much information as to the capacity of animals for work.

The human force of the company referred to, consists of sixty drivers, sixty conductors, one man for each sixteen horses at the stable, eight blacksmiths who do the shoeing for the whole, besides harness makers and painters and a few others.

The stable is of brick, two hundred feet square, and two stories high, with an attic. The two stories are occupied by the horses, which are led up to the second story, over an inclined plane. The attic is occupied as a hay and grain room, and one old horse, which seemed nearly blind, probably because, like the fish in the Mammoth Cave, there was nothing to see in that position. This individual amused himself, and served his race, by working a horse power hay-cutter, with which, in seven hours daily application, he is able to supply the wants of his four hundred brethren in the lower regions. The philanthropists of the great city, who labor so zealously for their fellows, and seem to make so little progress, I think may gain courage, by contemplating the example of this patient quadruped. Although constantly striving forward, he has never advanced a single inch, but he is accomplishing a vast deal of good by his efforts in the right direction. Water is brought by an aqueduct into the attic, as well as the other stories, and all the food is prepared by mixing the chopped hay with corn meal, and wetting it in one large box. It is then dropped, through wooden conduits

tors, to the lower floors, and distributed to the various stalls. Every part of the establishment was perfectly clean, and kept in thorough order. Mr. WILLIAM EBBITT, the superintendent, who knows, by the way, as much about horses, as any man in New York, has his various troops under as good discipline as a military academy. A fine of one dollar is imposed upon every ostler who leaves a bucket or shovel in sight, when not in use, and I think more dirt may often be found in one stall in a farmer's barn, than could be scraped together from the whole establishment. But five horses were, at the time of my visit, disabled from work, of the whole number, and only seventeen have died in two years past. Their average allowance of food is one hundred pounds, or two bushels of meal per week, and about *eight pounds* of hay per day, for each horse, and yet they are all kept in the finest condition. A car, drawn by two horses, and with seats for twenty-eight persons, leaves the stable every two and a half minutes through the day. The time allowed *down* is thirty-eight minutes, and *up* forty minutes, and notwithstanding the difference in the number of passengers who stop the car to get in or out, at any point on the route, the time of running seldom varies one minute. Each team runs three times down and back, daily, making for every horse twenty-one miles a day, at once without unharnessing. Forty cars are employed, costing about \$850 each; and Mr. EBBITT informed me that the cost of the horses varied from eighty-five to a hundred and forty dollars, each. Occasionally, by mistake they purchase one which proves to be worth four or five times as much, and when that fact appears, the horse is fitted for the market and sold for a higher sphere of action.

Mr. EBBITT showed me one specimen of the genus *horse* which is worthy of a place in Barnum's museum. It is a mare of full size, without a hair to cover her nakedness, not even by way of mane, tail or eyelashes. She is of a mouse color, fat and well formed, and at a little distance would pass for a sleek-haired animal, were it not for her perfectly ridiculous looking tail, which in grace and proportions, resembles that of a cleanly dressed porker. They say she "was ever thus since childhood's hour," and has had two colts of the same style of beauty. It strikes me that a few bottles of Bogle's Hyperion Fluid might be used on her with a fair opportunity to test its merits.

The forty cars run each eleven trips a day, making in all something more than three thousand miles of travel.

The cost of constructing this route with a double track, and of equipping it with cars, horses and harnesses, together with the real estate, was something more than seven hundred thousand dollars, and the stock has thus far paid ten per cent. dividends annually.

The only waste noticed about the establishment, is in the management of the manure, a great part of which passes off in liquid form into the river, while the remainder is sold for \$1000 a year, not more than one-third of what should be received, according to the number of horses.

As a model city railroad, with the best President and Superintendent that can be produced, the former by the way a New Hampshire man, I think this company is worthy a more particular notice than a very hasty visit enables me to give.

H. F. F.

Ladies' Department.

BREAD-MAKING.

We shall not presume to instruct our fair readers in the art of bread-making. The process, however, involves some scientific principles, which we propose to explain, in continuation of our series of familiar remarks on chemistry. Wheat flour contains two principal ingredients, *gluten* and *starch*, besides a small per cent (4-100 to 8-100) of sugar. The outside of the kernel of wheat contains a larger proportion of gluten than the finer flour. These two parts of the flour may be separated easily by enclosing a little flour made into a stiff paste, in a linen bag, and kneading it in a basin of water, until the water that comes through is no longer white. The starch by this process escapes from the bag, and the gluten, a tough, adhering mass, remains within. Many ladies have noticed the different kinds of flour, in the ease with which it is kneaded. The tougher kinds contain the most gluten. The bakers prefer the latter sort, because it admits of more raising.

If flour were simply mixed up with water, and baked without raising, it would make a very close, indigestible and unpalatable bread, hardly worthy of the name. To become soft, light and palatable, the dough must be raised. This is effected, ordinarily, by one of two common processes. In making what is generally known as raised bread,—improperly so distinguished, because all bread is raised either before baking or in the process,—the dough is made up with water only, it may be, and a small portion of yeast, which is to act as a ferment. In the making of cream-of-tartar or sour-milk bread, the means of raising it are different and act in a very different way, chemically. In the first, the fermentation of the yeast or leaven is extended to the mass of fresh dough. The decomposing gluten acts upon the sugar and resolves it into alcohol and carbonic acid gas. This gas, in the form of little air bubbles, is disseminated through the loaf, and expands or raises it, being prevented from escaping by the glutinous nature of the dough. The alcohol formed by the fermentation is expelled from the dough by the heat of the oven. It has been collected sometimes, in large bakeries,—but hardly pays for the trouble. The dough sometimes becomes sour before baking, in consequence of a second fermentation—the *acetous*—by which the alcohol is converted into vinegar, on the absorption of oxygen from the air. It then becomes necessary to introduce into the dough some alkaline substance, as soda or saler-

tus, which unites with and neutralizes the acid, and makes the dough sweet again.

In the second kind of bread, named above, the carbonate acid to raise it is obtained from the carbonate of soda, or of potassa, (saleratus)—by mixing with it in the flour some acid, as sour milk, cream of tartar, or cider or vinegar or hydrochloric acid—either of which, by its stronger affinity for the alkaline base—the soda or potassa—unites with it and liberates the carbonic acid. We see that by this mode of raising the bread, the sugar of the wheat is retained in it; whereas by the other process it is converted into alcohol and carbonic acid. We see also that the use of soda or saleratus is very different in the two kinds of bread-making. In the first, the alkaline base is required to neutralize the acetic acid,—in the second, the carbonic acid is needed to raise the bread. In each case a neutral substance is left in the bread; in the first, an acetate of soda—in the second, a base of soda or potassa, united with whatever acid is used.

Bread when baked is neither starch nor gluten. The globules of starch which remain unbroken in the flour, swell and burst under the influence of the moisture and heat, and with the gluten unite chemically with the water of the dough and form bread. No separation of the starch and gluten can be effected after baking. Even a portion of water chemically united with the bread can not be separated from it by evaporation. The hardest and driest bread has water combined with the flour.

Gluten is the most nutritious part of the flour. The bran, therefore, should not be excluded from the bread, if we have regard to its highest nutritive qualities.

The crust of bread, when moistened and returned to the oven, becomes smooth and shining. A portion of the starch, in the process of baking, is converted into gum. This gum on being moistened spreads over the surface of the bread producing the smooth surface, and also giving the crust a taste which the bread does not have. Corn bread has a peculiar aromatic flavor, owing to an oil which is disseminated through the meal. The inferiority of meal long ground, to that which is fresh, is due to the change which exposure to the air has made in these oily particles.—*Portland Eclectic.*

SOUTH DOWN SHEEP.—Can you or some of your numerous subscribers inform me through the pages of the *Cultivator*, where I can get the full blooded South Down Sheep, and what they will cost a pair?—S. D. Jefferson Co., Ind.

South Down Sheep can be procured of L. G. MORRIS, Fordham, Westchester county, N. Y.; Col. J. M. SHERWOOD, Auburn N. Y.; Z. B. WAKEMAN, Little Falls, N. Y.; and several other breeders in this State. The prices vary from \$20 to \$100 or more per pair, according to quality.—*Country Gent.*

CONNECTICUT STATE AGRICULTURAL SOCIETY.—
Officers for 1854.

SAMUEL T. HUNTINGTON, Hartford, President.

JOHN A. PORTER, New Haven, Recording Secretary and Treasurer.

ADVERTISING DEPARTMENT.

☐ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....50

☐ The above rates will be charged for all advertisements, whether longer or shorter.

Walnut Grove Nursery.

NEWTON CENTRE, MASS.

The subscribers have on hand as usual a large stock of Fruit and other Trees, which they are prepared to sell at very reasonable rates. Among others, Apple, Pear, Cherry, Plum, Peach, Grape Vines, Raspberries, Blackberries, &c. &c. Also, Ornamental Trees, Shrubs, Roses, Herbaceous Roots, Creepers, &c. &c.

A splendid lot of Sugar Maple, 8 to 10 feet high, \$30 per hundred.

6000 Apple stocks, \$10 per thousand.

5000 Buckthorn, 2 to 3 years, \$15 to \$20 per thousand.

Large and fine Norway Spruce; Arbor Vite for hedges and standards.

Fine lot Red Dutch Currants, \$5 per thousand.

Scions will be furnished, if ordered early.

Other things too numerous to mention. All orders will be promptly attended to, and the trees securely packed, when desired, for which an extra charge will be made. Catalogues sent to post-paid applicants. All packages delivered in Boston free of expense.

JAMES HYDE & SON.

Newton Centre, March 18, 1854.

W*H

R. M. COPELAND,

Landscape and Ornamental Gardener,

WILL furnish plans of Cemeteries, Public Squares, Pleasure Grounds, Gardens and Farms, with directions for their laying out and improvement, also for the construction of every species of buildings connected with Horticulture or Agriculture, Barns, Green-Houses, Conservatories, Rustic Arbors, &c., whether for use or ornament.

He will furnish lists of the most approved and desirable ornamental and useful Trees, Shrubs, and Flowers; also, plans and estimates for every species of underdraining, and will contract for and superintend the removal of trees of every size under fifty feet, at all seasons of the year.

Refers to—Hon. M. P. WILDER, Dorchester.

" S. H. WALLEY, Roxbury.

" SAMUEL WALKER, Roxbury.

" J. W. EDMANDES, Newton Centre.

Prof. H. W. LONGFELLOW, Cambridge.

J. W. PROCTOR, Danvers.

SIMON BROWN, Ed. of N. E. Farmer.

R. M. C. may be addressed Box 326 Boston Post Office, and No. 3 Dudley Block, Roxbury.

March 25, 1854.

cow5t2

To Farmers.

THE subscriber is now prepared to receive orders for the Improved Poudrette. It has been manufactured under the advice of some of the best agricultural chemists in the Country, and is now commended to the public as the most certain and cheap Fertiliser that can be obtained, acting favorably on all crops, and on all soils. Six different articles are used in its composition, which combined make it a perfect manure for every crop raised in New England. It is finely adapted to corn, and the present and prospective high prices of this indispensable crop, ought to induce all farmers to increase the quantity planted, which they can do profitably by using the Improved Poudrette.

Prof. Mapes says of it, "no farmer using it once, will be willing ever to dispense with it." I raised corn with it the past season at a cost of less than 40 cts. per bushel. Price in Providence \$1.50 per bbl., cash. It can be obtained of Messrs. PARKER & WHITE, 59 & 63 Blackstone Street, Boston.

T. B. HALLIDAY,

13 West Water Street, Providence, R. I.

Feb. 25, 1854.

Smc

Fruit and Ornamental Trees.

The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines &c. 1000 Buckthorn and Arbor Vite for Hedges.

S. & G. HYDE

Newton Corner, March 18, 1854.

W*H

Valuable Potatoes for Sale.

POTATO ROT.—A REMEDY BY WISE IMPORTATION AND REPRODUCTION!

THE subscriber offers the following valuable varieties of potatoes for sale. The N. Y. State Agricultural Society have generously encouraged their importation and culture.

1st. **THE ROUGH PURPLE CHILI.** This was imported at a great expense from South America, in 1851, and was the only sort out of eight adapted to our climate. For *hardiness, yield, and quality for the table*, it has no equal. Seventy-five small parcels of it were widely spread, in 1853, over twelve Northern States. From more than one third of them, embracing nine States, reports have been received. These reports, notwithstanding the unfavorableness of the season, usually show a yield varying from twenty to sixty pounds, from one pound planted. But two cases of disease have been reported, one from Mass., and one from N. Y., both in circumstances of very unfavorable culture. The adaptation of this variety to the varying soil and climate of our country is such as to render it superior to any now cultivated. Price \$3 ½ Bushel.

2d. **SEEDLINGS OF THE ROUGH PURPLE CHILI.** These were derived from the seed-ball of the preceding, in 1852. They present a considerable number of varieties. They have been chosen by three successive selections, from nearly eight hundred varieties, so as to secure hardiness, the best yield and fine flesh. In season of maturity many of them, and in color and shape the most of them, exceed the parent. They are now offered to the public, after a most laborious and costly cultivation, in the full confidence that they will make an addition of valuable sorts to those now in use, such as have never before been made. Connected with them are some other sorts of the same age, and equally valuable, and similarly selected from three other families. Many of these seedlings were widely tested the last year, in connection with the Rough Purple Chili. Those varieties of these seedlings which are too late for the Northern States, have been expressly selected for the South. Price \$3 ½ Bushel.

Each parcel ordered will be safely packed and directed to the purchaser by Railroad, or Express, as directed, and at the expense and risk of the purchaser. No package failed last year to reach its destination.

Dealers will be allowed a discount of twenty-five per cent.

Purchasers who take parcels from my house and pack for themselves, will be allowed twenty-five per cent. discount.

All orders answered for cash only.

RESIDENCE, near the State Lunatic Asylum.

CHAUNCEY E. GOODRICH,

Utica, N. Y., Feb. 10th, 1854.

References.

The following persons are acquainted with these potatoes, having all cultivated them the last year:

D. A. Bulkley, Williamstown, Mass. A. S. Mitchell, Farmington, Conn. A. Bradley, Whitestown. H. H. Eastman, Marshall. Dr. H. P. Hays, Wyoming. J. W. Briggs, West Macedon. M. P. Corvett, Schenectady. Sam'l Buckingham, Poughkeepsie, N. Y. L. L. Colt, Patterson, N. J. E. C. Walker, Elizabeth. Jas. S. Negley, and Jno. Fleming, Pittsburg, Pa. J. C. Holmes, Detroit, Mich. B. Murray, and M. L. Brush, Ottawa. Rev. G. W. Gale, Galesburg, Ill. D. D. Cathcart, Bristol, Ind. A. C. Isham, Madison, Wis.

March 1, 1854.

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The People's Journal,

AN ILLUSTRATED RECORD OF AGRICULTURE, MECHANICS, SCIENCE, AND USEFUL KNOWLEDGE.

EVERY Number contains 32 Large Pages of Letter-Press, Beautifully Printed on Fine Paper, and PROFUSELY ILLUSTRATED WITH ENGRAVINGS, forming at the end of each year, TWO SPLENDID VOLUMES, comprising Four Hundred Pages, and Illustrated with about FIVE HUNDRED ELEGANT ENGRAVINGS.

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ALFRED E. BEACH,

No. 86 Nassau Street, New York City,
Editor of the People's Journal.

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Single copies 12½ cents. Specimens sent on receipt of four postage stamps.

Feb. 4, 1854.

4w4

Highland Nurseries, Newburgh, NEW YORK.



A. BAUL & CO., in inviting the attention of their patrons and the public in general, to their very extensive collection of **FRUIT AND ORNAMENTAL TREES, SHRUBS, &c. &c.**, would respectfully inform them that the stock which they offer for sale the coming spring is unusually fine, both as regards quality of trees, variety of kinds, &c., &c.

The soil and climate of our Hudson Highlands have rendered proverbial the success of the trees sent from here to all parts of the union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the *leading standard varieties*, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as *novelties* of both native and foreign origin.

To particularize within the limits of an advertisement would be impossible; they refer to their general catalogue, a copy of which will be sent to all *post-paid* applicants, on enclosing a post office stamp.

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Pears in over 400 varieties, both standards on their own stock for orchard culture, and on the Quince for Dwarf, Pyramidal, and Quenouole, for garden culture.

Apples in over 300 varieties, both standards and dwarf; also, Cherries, both standards and dwarf; Plum, Apricot, Peach, Nectarines and Quince trees in every variety.

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Dealers and planters of trees on a large scale will be dealt with on the most liberal terms.

Newburgh, March 18, 1854.

5w*1

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I have now a prime stock of imported or full bred Suffolk and Middlesex Swine, for sale.

Having just bought the entire stock of G. W. Wilson Esq., of MALDEN, including his fine old Boar and Breeding Sows, I can fill orders with superior samples—old or young. The stock can be seen at my residence, Boardman St., Melrose, Mass. Address

GEO. P. BURNHAM,

Box 22, Post Office, Boston.

Feb. 4, 1854.

4w8cm*

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ALFRED E. BEACH,
Solicitor of American and Foreign Patents,
86 Nassau Street; New York.
1w* April

Feb. 11, 1854.

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Of superior quality, selected expressly for our retail trade, at lowest cash prices.

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For sale at Auction prices, a choice lot of Asiatic Fowls, consisting of the Brahma Pootra, Chittagong, Grey Shanghai, and Cochins China varieties, all young fowls, and warranted to be of pure blood, and of the large breeds. For pair, \$10. Two pullets and a cock, \$15. Cooped and sent by express, to any part of the United States, promptly, on receipt of the money. The above prices are extremely low, the ordinary charge for the same birds being \$20 to \$30 per pair.

ALFRED E. BEACH,
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Reference—**P. T. BARNUM**, Esq., President of the National Poultry Society.
 March 11, 1864. 4w1*

Eggs for Hatching.



The subscriber offers for sale, the coming season, Brahma Pootra Eggs, from as good stock as can be found in the country. His fowls are kept entirely distinct from all others, and persons wishing eggs from the above justly celebrated fowls, may rely on them as being pure. All eggs carefully packed, and sent any distance. Price \$4 per doz. All communications will receive immediate attention. Please address

March 25, 1864.

at

JOHN A. LORD,
 Kennesbunk, Me.

NEW ENGLAND FARMER

Is published on the first of every month, by **JOHN RAYNOLD** and **JOEL NOURSE**, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, Associate

HENRY F. FRENCH, Editors.

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March 1, 1864. 2m

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THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

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Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1864. 12*

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Super-Phosphate of Lime.—"DeBurg's No. 1."

Poudrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

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Feb. 18, 1864. 12*

Every Farmer Should Own

SCHENCK'S KITCHEN GARDENER—PRICE 50 CTS.

BRECK'S BOOK OF FLOWERS—PRICE 75 CTS.

COLE'S DISEASES OF ANIMALS—PRICE 50 CTS.

COLE'S AMERICAN FRUIT BOOK—PRICE 50 CTS.

New editions of which have just been published by **JOHN P. JEWETT & Co.**, and are for sale at all the Book and Seed Stores.

March 4, 1864.

2m



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, MAY, 1854.

NO. 5.

AYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR MAY.

"Then sing, ye birds, sing, sing a joyous song!
And let the young lambs bound
As to the tabor's sound!
We in *thought* will join your throng,
Ye that pipe and ye that play,
Ye that through your hearts to-day
Feel the gladness of the MAY."



A GAIN, May has come, bringing with it a new existence to all—a new phase of animated Nature. All vegetable life springs into a new vigor, having now succeeded in shaking off the cold embraces of winter. The animals look, and act, glad—the calves bleat, the cows low, the lambs bound in sportive gambols over the hillocks by the side of their affectionate dams—the cocks sing incessantly and the hens cackle garrulously, big with importance, as they are preparing for their anticipated broods! The hamlet is vocal with pleasant sounds, and the eye is gladdened with pleasant sights.

But MAY does not impart new animation to the lower orders alone. The desponding find new hope—the melancholy are more cheerful, and the sick grow strong in the soft breezes, wafted from a world of new flowers at the south. Even the little children have an instinct for the spring, and feel it to the very tips of their fingers.

"All the earth is gay;
Land and sea
Give themselves up to jollity."

MAY, too, is marked as the Month of Loves—lovers stray in the old woods, linger mid the solemn, deep-breathing pines, stoop by the murmuring brook and pluck the gay cowslip, or dream of happiness that never dies as they stand in the grand cathedral of the primeval oaks. The loves and lays of the poets are incited by the return of

spring; and when we can spare a moment from money-getting, or fame-getting, perhaps we shall establish some of the ceremonies which have so long prevailed in England in the merry month of MAY.

"It would be a pleasant sight, to see
A little village company
Drawn out on the first of May
To have their annual holiday:—
The pole hung round with garlands gay;
The young ones footing it away;
The aged cheering their old souls
With recollections and their bowls;
Or, on the mirth and dancing falling,
Their oft-times-told old tales retelling."

Not only the country people there, but the trades-people, mechanics, and chimney-sweepers, have their "good-times," in May. The milk-maids dress fantastically, and decorate themselves and their lovers with evergreens and flowers, and dance on the village green. The May-Pole is erected, and festooned with ribbons and flowers, and with pipe, and fiddle and drum, they express their joy at the return of MAY.

"The hedges and trees, they are so green,
As green as any look—
Our Heavenly Father, He watered them
With His heavenly dew so sweet."

But SEED-TIME has come, too, and we must hasten away from the *May-Pole*, and see if the waiting soil does not demand our attention now.

PLOWING AND MANURING.—Soils are so differently constituted and located, and present so many peculiarities of their own, that only a few rules are of general application. That a gradual deepening of the soil is highly beneficial to crops is a well settled principle. But even this must be varied according to the manner in which the manure is to be applied,—so that it seems necessary that each shall experiment for himself on his own land. Some most exemplary farmers spread green dressing upon the sward, and turn it under from six to ten inches, and say that they obtain fine crops of corn from the process, while others declare that they have tried it with an utter want of

success. Now it would seem that each one might settle this question for himself, by treating the same field, with the same kind and amount of manure, first by plowing under, and second by first plowing, and then spreading the manure and working it down two to five inches by the plow, cultivator, horse-hoe or harrow. An experiment of this kind instituted upon each part of the farm where the soils vary, would produce such results as to satisfy most persons what particular process they ought to pursue with regard to the depth to which manure should be placed from the surface.

STEERING SEED CORN.—The blackbirds, crows and cut-worms have ruined the prospects of many a fair field of corn, and obliged its owner to devote it to some other crop, after the beautiful blades had come up and made a fine start. To prevent this, the attention of the reader is called to several articles on the subject, recently given in these columns. Steeping the corn in salt-petre or copperas water, will give it such a taste as to make it disagreeable to the birds, and it is said also to the cut-worm. Soaking the corn in water and then rolling it in tar and plaster will also act as a preventive.

GREEN CORN FOR SUMMER FODDER.—Sow southern corn as early as the ground will permit, a few rows at a time, and continue at intervals of one or two weeks, and you may help out the parched pastures and keep up a liberal supply of milk. The soil should be deeply plowed, and generously enriched.

GRAFTING.—Treat the old trees gently—keep off the hob-nail boots, axes and hatchets. Graft the topmost branches this year, and leave the others to assist nature in carrying out the operations she has begun. Dig about the trees—feed them with a dressing of good compost, a little ashes, a few handfuls of bone dust, scrape slightly and scrub their old trunks with soap and water, and then stand by and see how they will yield you in five or six years—sometimes they will in three or four—the delicious Baldwin, Hubbardston or Northern Spy. If some of your young trees have been injured, have contracted a stunted habit or are in any way deformed, overhaul them thoroughly about the roots, then cut off close to the ground, and insert a Hunt Russet, Sweet Bough, or Morrison's Red if you can get it.

Take up one hundred of your little nursery trees—if they are half an inch in diameter they will answer—cut off the tap, and most of the other roots, keep them in moist earth and graft at your leisure; then set them in nursery rows and cultivate well, and you will soon be supplied with the best of trees for continuing out your orchard.

THE CORN CROP.—See article on "Profits of raising corn," in another column, and in the

weekly *Farmer* of April 22, by B. F. CUTTER, Esq., of Palham, N. H. He makes it quite clear that his corn cost him but 53½ cents per bushel. We know Mr. CUTTER so well as a pains-taking and careful man, that we have no doubt whatever that his statement is correct. Well, then, kind reader, "go and do likewise," and make money out of your corn crop.

SMALL FRUITS.—How did the raspberries, currants, strawberries, gooseberries, blackberries, &c., succeed that you set last year! Add a few more to them this spring—you will be convinced by—and by that there is profit in it.

THE GARDEN GENERALLY.—Get in peas to succeed those sown in April—plant an asparagus bed if you have none—sow lettuce, parsley, onions, and all the vegetables desired for the table.

CARROTS.—There is no certainty of a good carrot crop unless they are sown early; the moment the soil is suitable in May, get in the seed. And now one word for

THE ORNAMENTAL.—If it has not been done before, strike out a simple plan for a garden which shall be in some degree ornamental, and at the same time not much obstruct the operation of the plow. Work constantly to this plan, and it will soon grow into beauty under your hands—and the beautiful will really be a *heart's-ease* in your garden. We do not urge anything intricate, expensive or extravagant; simply a path or two, and a pleasant border from which to look over upon your fine beds of garden sauce, tomatoes, and melons, and squashes, and sweet-potatoes, and egg-plants, and savory herbs. The conception of the thing is the most difficult; when this is done, the job is half accomplished, and you at once determine to indulge a little in THE ORNAMENTAL. "Whoa! gee a little, Billy," great care is necessary among these young trees!

EXTRAORDINARY COW.—We published a few weeks since Mr. Hobart's statement relative to a cow which he has—three and a half quarts of whose milk produced a little more than one pound of butter, being a better yield of the butyraceous qualities—or, considerably exceeding the statement made a short time since in the *Ploughman* by its editor, Mr. Buckminster, concerning his extraordinary Devons—these yielding a pound of butter to four quarts of milk. Mr. B. however must yield the palm to our neighbor, Mr. Hobart, who, by the way, has at our request furnished our readers with the following additional statement, relative to his extraordinary cow:

MR. EDITOR:—Sir, In answer to your inquiries in regard to my cow, I reply:—She is of the common native breed, dark red color, medium size, weighing, I should judge, between six and seven hundred pounds, and is ten old this Spring. Her only keeping has been corn stalks, and common English hay. She had no meal or any other food, than the above mentioned.

—*Andover Express.*

R. B. HOBART.

RANCID BUTTER.

BY OWEN MASON.

"A French scientific journal states that it has been ascertained by frequent experiments, that the bad smell and taste of butter may be entirely removed by working it over in water mixed with chloride of lime. The discovery was made by a Brussels farmer, whose practice is to take a sufficient quantity of pure cold water to work it in, and put into it from 25 to 30 drops of chloride of lime for every 10 pounds of butter. When it has been worked until the whole has been brought into contact with the water, it should be worked again in pure water, when it will be found to be as sweet as when originally made. The experiment can easily be tried, and we commend it to our citizens who are driven to the necessity of buying rancid butter, or of using none.

Another effectual mode of renovating butter is said to be, to churn it over with milk until the old salt and bad taste are all removed, and then work it over and salt it afresh. We find the above in the *Syracuse Star* and think it may be worth a trial."

The above article has been extensively copied into agricultural as well as political newspapers. We have tried both of the methods described, as well as some of our own, and have found them all utterly ineffectual for the renovation of butter that has once become rancid. The best disposition to be made of such butter is to put it into the receptacle for soap grease. Anything so offensive, to all but those of the coarsest taste, must be unwholesome.

Pure butter, that is salted with pure salt, may be kept for years without becoming rancid; this we know to be a fact, and butter makers would do well to inform themselves of all the causes productive of rancidity, or any other quality that interferes with its preservation or injures its flavor and relish.

In an editorial article of the *Journal* some weeks since, almost all the poor butter was charged to the want of skill or attention on the part of the dairy women. A correspondent, whose communication is rather too long for publication, comes up to the defence of this useful class of the community, and attributes nearly all the poor butter to the neglect of farmers in providing suitable places for the keeping of milk and butter. A short essay, by one of the best judges in the State, was published in the transactions of the Rhode Island Society for Encouragement of Domestic Industry, and in pamphlets for general distribution, in which the author, while he does not overlook the circumstances influencing the quality of butter noticed by the *Journal* and its correspondent, points out several others, and very comprehensively the means of avoiding them.

That writer considers that the use of *impure salt*, from Liverpool and Onondaga, is one of the most common causes of that rancidity and bitterness that characterize, in a greater or less degree, by far the greatest portion of the butter brought hither from New York.

That the quality of butter made in New York has constantly deteriorated, from whatever cause, we think is undeniable. Time was when there was no difficulty in procuring a prime article, and "Goeben butter" had a reputation equal to the best products of our own dairies; but of the butter

for winter use, sold in this market during the past two years, three-fifths would be branded as *grease* in England, and it deserves no better name any where.

The exorbitant prices it has commanded for some time past seems to have produced a perfect recklessness in regard to its quality, both on the part of the makers of it and the large dealers, and the market has at length become glutted with the execrable stuff. We wish no greater punishment to them than that they should be compelled to eat the article with which they hoped to grease the throats of their customers at the rate of 30 cents per pound. Good butter is both a necessary and a luxury, and it constitutes a most important item in the disposable products of the farm; the whole community are therefore interested in having all the causes investigated and exposed which contribute to the deterioration of its quality. and the authorities of New York are specially interested in ascertaining what portion of the mass of bad butter, sent from that State, is fairly attributable to the employment of impure salt. We have seen many analyses of the New York salt, some purporting to have been made by authority, and all representing it of the purest kind. That the purest salt may be made from the brine springs of Onondaga there is no doubt, and yet it is difficult to find commercial samples, even of that which is sold under the name of "dairy salt," in which the presence of lime, magnesia, and sulphuric acid, may not be detected by the appropriate tests, showing contaminations of two or more of the following articles, viz.: Epsom and glauber's salt, sulphate of lime and the chlorides of calcium and magnesium—precisely such ingredients as a chemist would prescribe with which to make bitter butter.

Very recently, at our suggestion, a friend has subjected to chemical examination every variety of salt to be found in this market. Among the six or eight varieties examined, that from Syracuse, called dairy salt, was the most impure, while the purest variety was that from St. Martins, as prepared and ground by Messrs. Sweet and Angell.

The term "rock salt," though erroneously applied, is meant, in *this vicinity*, to designate the clean, coarsely crystallized article, produced by solar evaporation and imported from the West India Islands. The very best samples of this salt are always procured by our most skilful butter makers, by whom it is carefully washed, dried and pounded or ground very fine. If carefully selected and thus prepared, it is generally sufficiently pure for the purpose. If any doubt of its purity exist, it may be determined by the following process. If distilled water cannot easily be procured, collect some rain water as it falls, in a clean earthen pan, (not from the roof,) and in it dissolve a portion of the salt. Take half a gill of the solution and add to it three or four tea spoonfulls of a solution of carbonate of soda, and boil in a glass dish or a well tinned vessel a few moments, then pour into a tumbler. If the solution become milky, and a white sediment form, the presence of lime or magnesia, or both, is certain. Into a wine glass of another portion of the solution, put drop by drop, a solution of chloride of barium, and if the liquid become milky and a white precipitate form, the presence of sulphuric acid is certain. Salt upon which these tests produce these effects is unfit for butter-making. If, however, the solutions show

only a very slight milky tinge, as when a drop of milk is added to a wine glass of water, the foreign contaminations are not in such quantity as to materially injure the salt. These tests are easily applied, inexpensive, and sufficiently decisive for practical purposes. The carbonate of soda and chloride of barium can be procured of any scientific apothecary.

We commend the essay alluded to above to those who are engaged in butter making. Copies can be obtained of the Secretary of the Rhode Island Society for the Encouragement of Domestic Industry.

FRAUD IN BUTTER MAKING.—The recent exposures that have been made of the adulteration and manufacture of milk in New York, are so disgusting in their details, that we should suppose an inhabitant of that city could hardly look at a milk pot without a sensation of nausea. It would seem, from the following article, that similar practices are resorted to in the making of butter, but we defy the most ingenious rascality to make, of whatever materials, a worse article than is now often sold in the market:

"The *Boston Herald*, in an article on this subject, says unprincipled speculators have been, and are still at work adulterating butter prepared for the market—though the blame is generally thrown on the dairies. From evidence that has come to our knowledge, says the *Boston Herald*, we are persuaded that this adulteration is extensively practised. A correspondent who has purchased and tested the base article, writes as follows:—"A new fraud appears to have been discovered in butter-making. The fraud is this: The butter-maker adds a substance which appears to be of a vegetable nature to the real butter. A dealer of whom I purchased a few lumps, told me that the expressman who delivered the butter to him from Greenfield, acknowledged that when they churn the cream, it is now an almost universal custom to put *rennet into the butter milk*, to turn it to a cheese, and so work it with the butter for market, increasing the quantity about thirty per cent. I discovered the fraud by melting the butter in the oven, and found that a substance equal to one-third the original weight was left. The person of whom I purchased the butter says that this fraud is very extensively practised, especially for the New York market."—*Providence Journal*.

For the New England Farmer.

LEGISLATIVE AGRICULTURAL MEETINGS.

FRIEND BROWN:—I perceive this series of meetings wound up, a little before the subjects assigned for discussion had been exhausted. The last of these, if I remember right, was, "In what manner can the State best advance the interests of the farmer?" This is a topic, peculiarly appropriate for such an assembly, provided you can get them there. But if they won't come in, it must be met in some other form.

In all the reports of the discussions, the last winter, little or nothing has been said about the education of the farmer, or the establishment of schools for this purpose. Is this idea to be abandoned? Or is it deferred only to some more convenient season?

It is gratifying to learn that something is about to be done, by way of experiment, on the State farm at Westboro'. This, in my judgment, is the best thing that has been started by the Board of Agriculture; both in illustrating what can be done, in the application of the principles of science to culture; and in the preparation of a numerous class of laborers to superintend this culture. One hundred young men will annually leave this institution, and come upon the community under the necessity of earning their livelihood. How important is it, that they shall be well fitted to do this. When I took my pen in hand, I thought of speaking in detail how this could best be done. But on the whole, I think it is most prudent to leave it in the care of those, on whom it devolves, by order of the Legislature.

April 8, 1854.

PREPARING SEED CORN.

Many farmers who pride themselves excessively on their practical wisdom, denounce the idea, now very prevalent among the more intelligent part of the community, that the corn plant can in any way be benefited by preparing the seed, before planting it. They cite nature to substantiate their scepticism, forgetting that where nature proceeds exclusively upon her own original system, she very rarely has to contend with obstacles which operate so fatally against the artistic operation of her laws in the care of human enterprise and effect. In the natural propagation of fruits and vegetables, an excess of seed is invariably disseminated, so that if a large portion should perish, or be destroyed, enough, and more than enough, would be left to realize the design originally intended. But man adopts a different system. He intends to sow and plant only enough "to grow;" consequently it is of the utmost consequence that it *should grow*. Hence he very often finds it advisable to assist the efforts of nature by the power of art. In regard to preparing seed corn, a very successful experiment was made some years since by Mr. LANSING WETMORE, of Pennsylvania, and which has been repeated by several cultivators of intelligence and veracity, in other sections of the Union, with equally fortunate results. The *modus operandi* is reported by Mr. WETMORE, in his published account, to have been as follows:

"At noon of the day before planting, 18th of May, I put my seed corn to soak in a strong decoction of copperas water, say two pounds of copperas to warm, soft water sufficient to cover a bushel of corn. The next morning took out a peck, added a pint or more of soft soap, stirred it thoroughly, then put on plaster enough to make it convenient for planting, say one quart. The whole field was planted with the seed thus prepared, with the exception of four rows, which were planted with seed without preparation. The after culture of the whole was alike,—passing through each way with the cultivator twice. The four rows last mentioned were cut up, harvested, and the corn weighed and measured by itself; also, four rows next adjoining, the seed of which had been

prepared as above. The produce of the four rows from the unprepared seed, was eleven bushels and a half. The produce of the four rows from the prepared seed, was seventeen bushels—a difference of five and a half bushels of ears in one hundred and twenty hills!"

It takes about six quarts of corn to plant an acre, at the usual distances, say three and a half feet each way; so that for six quarts of seed corn, six ounces of copperas would be required—an ounce to a quart is near enough as a general rule.

Wheat growers and gardeners well know the value of liming wheat, and steeping garden seeds where they desire an early and vigorous growth. A little aid to the corn plant while the weather, perhaps, is too cool, or the plant does not find the sustenance it needs in its immediate vicinity, will give it such a start as to keep it in advance of other plants not so treated throughout the season. We can see this in the fields of smaller grains, where a plant which started early and vigorously keeps the precedence over its fellows throughout the season, and in the autumn has perfected a crop proportionately large.

For the New England Farmer.

PROFIT IN RAISING CORN.

FRIEND BROWN:—Agreeable to my promise, I now send you, as near as I can, the cost of raising and the profits of three acres of Indian corn, grown on my farm the past year. The land was a light, sandy loam, and had been in grass 7 years, one-third part of it very thin and poor, and the crop suffered considerably by the dry weather. The following is the account:

	Dr.
Manure, (\$22, one-half of it).....	41.00
Plowing.....	12.00
Harrowing.....	3.00
Furrowing, one way.....	1.50
Seed.....	1.00
Planting.....	4.50
Hoeing, three times.....	18.00
Cutting and getting stalks.....	8.00
Harvesting.....	18.00
Rent of land.....	75.00
Total expenses.....	\$125.00
Deduct fodder.....	45.00
Cost of corn.....	\$80.00
	Cr.
Cr. by fodder.....	45.00
Cr. by 150 bushels corn.....	150.00
	\$195.00
Deduct expenses.....	125.00
Net profits.....	\$70.00
Cost of corn per bushel.....	53 1/2 cents.
Profit per acre.....	\$23.33 1/3
Cost, per acre, of cultivation.....	\$41.66 2/3

Of course, the cost of cultivating corn must vary much with the different kinds of land. The above was free from stones, and very easy of cultivation, generally, but was infested with witch grass that made the expense of hoeing much greater. The manure is estimated at \$1.00 per load of 30 bushels, was composted in the barn cellar, mostly, and was good—was plowed in 9 inches deep. There was a compost of plaster, hen manure and

ashes dropt in the hill, a large handful to 2 or 3 hills, and the work charged at \$1.00 per day, although some of it cost me much less. By the above it will be seen that a man must raise about 32 bushels per acre, to pay the expenses of manuring and cultivating.

B. F. CUTTER.

Pelham, N. H., March, 1854.

CONCORD FARMER'S CLUB.

THURSDAY EVENING, MARCH 31, 1854.

The subject for discussion was—"In what way can our milk be disposed of to the best advantage."

Dea. Tarbell submitted the following statement as the result of his experience, in selling milk and making butter.

He keeps eight cows uniformly—when milk sells at 18 cents in summer and 22 cents in winter, per can of 8 qts.,—he receives \$25 less than he would, if he made the same into butter. When milk sells for 19 cents in summer, and 23 cents in winter, his 8 cows yield him \$11.50 less than they would if he made butter. When he sells his milk in summer for 21 cents, and in winter for 27 cents, which is the price for the present year, he receives \$25 more than he would, if the same milk were made into butter. He does not take the labor into consideration in the foregoing statements, but thinks it would cost \$25 more this year, to make butter, than to sell the milk, thus making a difference of \$50 this year, between selling milk and making butter,—the same being in favor of selling the milk. Dea. TARBELL furnished the following statement of income from 8 cows, for 3 years.

In 1846, he sold milk for.....	41.61	
Butter.....	153.27	
Calves.....	46.79	
Value of skim milk.....	20.00	
Value of butter used in family.....	33.50	\$263.07
In 1847, he sold milk to amount of.....	38.00	
Butter.....	155.08	
Calves.....	47.30	
Value of skim milk.....	20.00	
Value of butter used.....	31.60	290.77
In 1848, he sold milk to amount of.....	231.25	
Calves.....	35.32	266.57

The Dea. gives his cows no grain except a very little in the spring.

E. WOOD, Jr., has milked 23 cows during the past winter; each cow has given him over \$60 worth of milk. He gives each cow 4 quarts of grain per day, 2 quarts of oil meal and 2 quarts of Indian meal or shorts—amounting in value to \$18 per year for each cow. Mr. Wood thinks it more profitable to sell milk than to make butter, at the present prices for each.

Dr. KEYNOLDS thinks making butter would be more profitable than selling milk, if good butter cows were selected. He thinks from one-third to one-half of all the cows selected for milk, are not good cows for butter.

JACOB B. FARMER, thinks if the farmer has sufficient help, it will be more profitable to make butter; but if he has to hire his female help, it

will be better to sell the milk. His cows have all averaged him \$7 per month for each cow, during the past 3 months.

The club chose Dr. REYNOLDS, J. B. MOORE, E. WOOD, JR., and SIMON BROWN, a committee to assign experiments to each member, to be tried, during the present year.

The club voted to meet at the house of the Secretary, on the 13th of April, to consider the assignments above referred to. They also voted unanimously to partake of a supper with their ladies and invited guests, at the Middlesex hotel, on the 19th of April.

C. W. GOODNOW,
Secretary of the Club.

In accordance with the above vote, the Club met on the 13th of April, and voted to try the following experiments during the coming summer, which several experiments were assigned as follows, to different members of the Club.

Experiment 1.—To plant an equal number of hills, of the 12 rowed, and of the 8 rowed Plymouth corn, and weigh the product of each, in the fall. The cultivation and soil to be as near alike as possible.

Assigned to C. W. Goodnow and J. B. Moore.

Experiment 2.—To cut the stalks on 50 hills of corn, at the usual time, cut up 50 hills at the ground, when the corn is glazed, and let it mature in the shock, and let the stalks remain on 50 hills until fully ripe, and weigh the corn on each, when dry.

Assigned to J. B. Farmer and J. P. Brown.

Experiment 3.—To plant equal areas with corn $3\frac{1}{4}$ feet apart, each way, and $3\frac{1}{4}$ feet one way and 18 inches the other way, and weigh the corn on each, when dry.

Assigned to Simon Brown, Daniel Tarbell and F. A. Wheeler.

Experiment 4.—To plant the same quantity of ground with corn, of the same kind, with compost manure, at the rate of 25 loads to the acre, and with guano, at the rate of 250 lbs. to the acre, and weigh the corn in the autumn.

Assigned to Jos. D. Brown.

Experiment 5.—To take half an acre of grass land, spread 16 loads of manure on the same, then plow it 6 inches deep, harrow and furrow out without breaking the sod. Put 8 loads of manure in the furrow, and plant corn; again, take half an acre of grass land, plow the same 10 inches deep, spread on 24 loads of the same kind of manure, plow it in with a horse, and plant corn at the same distance, as in the other piece, and measure the corn raised, in the fall.

Assigned to Charles A. Hubbard, J. Warren Brown and Levi Miles.

Experiment 6.—To sow not less than half an acre of winter blue stem wheat. State the mode of cultivation, the quantity and weight of wheat raised, and the quantity of seed to the acre.

Assigned to Simon Brown and J. D. Brown.

Experiment 7.—To sow equal areas with a peck and with half a bushel of millet seed, and weigh the result.

Assigned to E. Wood, Jr., and John Reynolds.

Experiment 8.—To sow 2 and 3 bushels of oats to the acre, and measure the crop.

Assigned to Cyrus Conant.

Experiment 9.—To sow equal areas of land, with carrots, 15 inches and 24 inches apart, other things being equal, and weigh the crop.

Assigned to A. H. Wheeler and Gardner Wheeler.

Experiment 10.—To plant equal areas with carrots, with compost manure and with guano, other things being equal, and weigh the products.

Assigned to J. B. Farmer, W. D. Brown and S. G. Wheeler.

Experiment 11.—Raise equal areas of Ruta Bagas, with compost manure and with guano, and state the result.

Assigned to J. B. Farmer and Edwin Wheeler.

Experiment 12.—To sow rye with 250 lbs. of guano, to the acre, by the side of rye, without any guano, and report the quantity and weight of each.

Assigned to E. W. Bull and J. P. Brown.

Experiment 13.—To spread 200 or 300 lbs. of guano to the acre on grass, and compare the result with grass on similar land without guano.

Assigned to E. Wood, Jr.

Experiment 14.—To spread on the same kind of grass land, 300 lbs. of guano and 20 loads of compost, and compare the results.

Assigned to J. B. Moore and Jona. Wheeler.

Experiment 15.—To compare the raising of turnips with bone-dust and with compost. Stating the quantity of each used, and the result.

Assigned to Minott Pratt and Simon Brown.

Experiment 16.—To compare the raising of turnips with super-phosphate of lime and with compost manure.

Assigned to J. B. Farmer and E. R. Hoar.

Experiment 17.—To compare guano with super-phosphate of lime, in the culture of corn.

For the New England Farmer.

ON RENOVATING SOILS.

DEAR SIR:—In your Feb. No., is an article by ELIHU CROSS, HOOBAC, N. Y., whose caption is enough to awaken every sleepy or lazy farmer in the country. It purports to answer the greatest question that has interested the farming community for many years. I examined it with interest; the theory is true, but it is impracticable, except the last paragraph, and this, in my humble opinion, is not the most perfect way of renovating worn-out lands. He says, seed your land thick with clover and let it grow without feeding for 2 or 3 years, and then you may remove the clover and plow up, when you will find it rich. Can Mr. C. believe that, to let the clover remain on the ground and waste away on the surface by bleaching and evaporation, is better than to plow it in when fully grown? In my opinion, he begins this paragraph on a false supposition, or it contains a contradiction in its terms. He cannot get a growth of clover on worn-out lands; it will not stock, as we term it, or come up, and grow on such lands; Buckwheat will grow much better, and answer quite as well as a covering. I have for a long time considered that those plants that have a broad leaf are less exhausting than those that a re

narrow and shade but little, but when fully grown, they should be plowed in while they contain the most esculent matter; this will lighten and enrich for the next crop, which should be put on as soon as possible; should the land be adapted to rye, sow immediately, let it stand until the next June, then plow and sow buckwheat again, and so continue until your land will stock with clover; then you may remove, as Mr. Cross says, but don't sell it to be pressed and go to Massachusetts, as is the practice here in Vermont, where it grows near enough to be done with reasonable transportation to the line of the Railroad. Here is a new and alarming source of impoverishment to our farmers; hay, grain and vegetables, are grown on purpose to be sent out of the country, and this is a new source of impoverishment to our soil. I wish some able pen would take this evil up and show it more fully to our farmers; they think they are making money by farming, because they pocket \$100 more, now, by selling off their hay, grain and potatoes, than when they spent it on their farms, when, in reality, they impoverish their lands in a ratio that will alarm them a few years hence, and leave them with a worthless farm, or nearly so.

A VERMONT.

CLASSIFICATION OF MANURES.

The following classification is taken for Stockhardt's Field Lectures. The best manures are given first.

I. MANURES RICH IN NITROGEN.

1. *Substance containing ammonia*, (very forcing.) Ammonical salts of all sorts, good guano, urates, and putrid animal substances, such as blood, flesh, skins, &c.; poudrette, gas-water, putrid urine, draining compost, fermented stable manure, especially of sheep and horses.

2. *Azotized substance that are easily decomposed*, (somewhat quickly forcing)—Horn-shavings, glue, boiled flesh, bones liquified by acid, steamed and highly pulverised, oil-cakes of all sorts, malt-grain and the refuse of beer-breweries, fresh urine, drainings, stable manure beginning to rot.

3. *Azotized substances that are decomposed with difficulty*, (slowly forcing.) Bone-dust coarsely powdered, woolen-rags, fresh stable manure.

4. *Substances containing nitric acid*, (quickly forcing.) Nitrate of potash [ordinary saltpetre,] nitrate of soda or Chili saltpetre, nitrate of lime, or decayed stable-walls, rubbish of old clay walls, and old compost earth.

II. MANURES RICH IN OARBON: [forming humus.]

Stable-litter, straw, foliage, weeds, forest leaves, saw-dust, lawn and garden trimmings, rotten mould, turf, earthy brown-coal, and vegetable substances of nearly all sorts.

III. MANURES CONTAINING POTASH: [strongly forcing.]

Potash, nitrate of potash, malt-grain from beer-breweries, urine of breeding cattle, wood ashes, foliage, stalks and leaves of all sorts, lawn and garden trimmings, building rubbish, street-sweepings, compost, burnt clay and loam, marl of many sorts.

IV. MANURES CONTAINING SODA: [less visibly operative.]

Common salt, refuse salt, Chili salt, saltpetre, soap boilers' lye, urine, certain sorts of manuring salts, soda felspar, and some other kinds of stone, soap-suds, dish-water.

V. MANURES RICH IN PHOSPHORIC ACID [seed forming.]

Burnt bones, bone black, sugar refuse from refineries, phosphorite, and a few other kinds of stone, poor guano, raw bones, bone dust, true guano, animal substances of all kinds, oil-cake, malt-grain, from breweries, solid human and animal excrements, stable-manures, urine of carnivorous animals, wood ashes, straw leaves, &c.

VI. MANURES CONTAINING SULPHURIC ACID: [partly direct manures partly absorbent of manuring substances.]

Gypsum, sulphuric acid, green vitriol, sulphuric acid, ashes of pit-coal, turf, and brown coal.

VII. MANURES RICH IN LIME.

Burnt lime, chalk, marl, gypsum, ashes, ashes of brown coal and turf, building rubbish, pond-mud, and soap-boilers' ashes.

VIII. MANURES RICH IN SILICA.

Pit-coal ashes, as also ashes of all sorts, sand, straw, stable-manure, &c.

IX. MANURES THAT PULVERISE THE SOIL.

Sulphuric acid, muriatic acid, lime, marl, humus, &c.

X. MANURES THAT IMPROVE THE SOIL.

Lime, marl, loam, sand, pond-mud, vegetable mould, turf, &c.

Here is a fine classification of the chief manures that are employed as fertilizers. They should be chosen and applied according to the nature and condition of the soil, as well as with reference to the crop, that is to be produced. Many of the manures are compounds—hence the reason why you find them repeated in the different classes. The farmer should preserve this classification, and use it until he finds a better one.

For the New England Farmer.

BUGOLOGY VS. SQUASHOLOGY.

MR. FARMER:—The remedy prescribed by one of your correspondents is much like one I once heard from a celebrated physician.

A particular friend of mine, an eminent professor and president of a medical college, and withal a popular man, particularly with the ladies, for his varied knowledge, social qualities, love and knowledge of botany, flowers, &c. &c., was conversing with a bevy of young ladies. Among other things he told them they could eat as many onions as they pleased, and by eating another article all the effect would be so neutralized that no one would suspect they had ever seen one. Their curiosity was excited, and all were anxious to hear the remedy. The professor gravely told them that after eating a hearty meal of onions, they should eat a quantity of *garlics*.

Now if your correspondent had a large plat of autumnal marrowfat squashes or cheese pumpkins—and they were attacked by an array of striped bugs—what would he do! Certainly, according to his theory, not plant melons and cucumbers among them.

A more certain remedy for bugs may be found in simple yellow Scotch snuff—just sprinkle it on their leaves—it will not injure them, and there will be at once a general stampede among the bugs. I have tried it nearly twenty years without fail.

C. GOODRICH.

Burlington, Vt., 1853.

For the New England Farmer.

WHAT A GARDEN SHOULD BE.

The wood-cut accompanying this article represents the same plot of ground as did the one in the last week's paper, with this difference, that the former was, as too many are, inconvenient and ugly; the latter is arranged with an eye to both convenience and beauty. I do not mean to say that many may not criticise the present arrangement, but all must admit that the mere lines, irrespective of filling, present more agreeable and harmonious combinations to the educated eye, than those of the former plan. Doubtless, it may be said that the description accompanying that engraving was unfair, for there, all things are dirty, ill-kept and in confusion, qualifying circumstances which would destroy the beauty of any place; I admit that I did show the dark side, and *designedly*, for any one can make such allowances for the better as the more or less manifest necessity of the example before them demands. In the former case we have seen that when the proprietor wished to take his wife to ride, or to church, she must either get in at the barn, or else, after driving out through the gate at the end of the farm road to the front entrance he will there take her in; on his return, he will drop her, rain or shine, at the same place, to open the gate, and dodge the drops up the long path, or she must hold his horse, whilst he opens the great gate, getting out in the barn, run for the back door. As will be readily seen, the curved road, *f*, does away with this necessity; here there is but one gate, and from the carriage to either the front or back door is but a short distance; or should he wish to leave a barrel of flour at the kitchen, it is but a short distance to carry or roll it, without being obliged to cut up the grass.

So, too, the paths through the garden, to lead from the house and barn; they all bend in such a manner as to offer the readiest means of exit and entrance, without leaving sharp corners to be cut across.

The long, straight path up to the front door, rendering the house and its contents visible each time the door was opened, is gone, and the few trees, indicated, have broken off the direct sight from the street, whilst the flower beds, *h*, offer a pleasing object to the eye, when we step out in the cool summer morning to breathe the fresh air, or listen to the birds. To the house have been added the porch and verandahs, *j*, affording a cool promenade morning, evening and mid-day, and not only screening the windows from the hot sun, but when festooned with vines, furnishing more beauty than any other possible ornament.

Moreover, verandahs or piazzas, when trellised with wood, or better, a cheap arrangement of wire, offer one of the best opportunities for the growth of the grape, giving both beauty and fruit, or the woodbine with its rich summer green, and autumn red foliage, or the honeysuckle with its luscious fragrance, or the roses of every hue and shape. Where taste has been developed for such ornaments, and the commoner vines have been used, the Wistaria with its million clusters of purple blossoms, or the strong, sturdy Begonia make a delightful variety.

The best vines for common use are the grape, (*Isabella*) the clematis, woodbine, (*Ampelopsis*),

the monthly trumpet honeysuckles, and the hardy roses; of one thing there can be no doubt, that for beauty, fragrance, fruit, and immediate ornament, the different varieties of vines are unsurpassed. *Could I have but one division of ornamental vegetation, I should take vines; and when properly arranged on the house, the dread of injury to the wood is entirely unfounded.* The entrance gate is carried a little back from the road, which gives greater ease of access, and admits the tying a horse aside from the street.

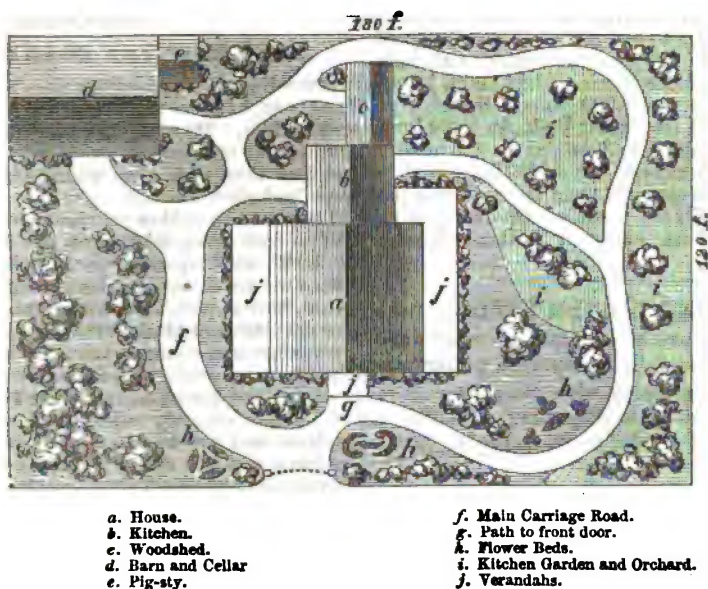
We do away with the pile of manure, altogether, by digging a cellar to the barn, and cover the small, outside pig-sty, with shrubs and vines; we also have put some vines about the barn; probably the grape.

Flower beds, *h*, are cut out of the grass, and should be kept well filled with flowers of a uniform size and time of flowering; those directly in front of the house may be planted with a variety of bulbs which will begin to bloom as soon as the snow is off (*Snowdrops*) and end only with the frost; the interspaces may be filled with annuials, gillyflowers, gilia, mignonette, &c. The groups directly under the windows are ornamental shrubs; perhaps no more satisfactory outlay can be made than in a judicious selection of flowering shrubs;—get those varieties that will begin to bloom early (*Cydenia*,) and leave off late, (*Althea*;) get roses that do not blossom once only in the season, (*old fogies*,) but remordents, and perpetuals that will flower every month.

So, too, with flowers; get perennials as much as possible, and thereby avoid the necessity of repeated plantings: such flowers and shrubs give the greatest amount of return for the least amount of trouble. The groups of trees, from the middle of the west side, to the upper corner of the east, should be entirely ornamental, mostly deciduous, but a fair intermixture of evergreens; the best and cheapest Evergreens are Hemlocks and White Pine; one of the most beautiful, the Norway Spruce of whose beauty few can have any conception who have not seen it;—the Arbor Vitæ is well enough in the shade and as a hedge, but never makes a beautiful tree. From the deciduous trees, select those which have the most beauty of spray, other things being equal, for remember you are to see them through winter, and do not care to be looking at a lot of stubbed and blunt ends for six months, when you might be feasting your eyes with the most elegant and graceful combinations of buds, twigs and branches; for this, as for many other qualities, the American Elm takes precedence; but be very careful not to scrape the bark of your ornamental trees, daubing them afterwards with any vile combinations of lime, sulphur and mud to kill the bugs, thus destroying one of the chiefest beauties of the trees, without doing any good, and too often causing much injury. In the little green patch by the back door may be set one or more ornamental trees, as a protection to the shed, and a shade to the windows of the back side of the house; the same also at the corner of the barn, and in the bend of the carriage road opposite.

In the garden and other unoccupied grounds may be planted all kinds of fruit trees, the more the better, as far as the room will permit; in a small place, dwarf varieties of pear are best for their early maturity; and as apples occupy a great deal of room, with but comparatively little profit,

Village Homestead as it should be—Improved.



it will be best to reduce their numbers, and increase the other kinds; beside the fences and paths, set currants, gooseberries and raspberries; of the two former, the tree varieties are best, as they do not sucker. Having thus given a detailed account of the necessary changes, I will close with reiterating that however pleasing the arrangement of lines, trees and flowers is in itself, it is absolutely nothing, unless the owner is ever active in keeping the whole place in a state of repair; nothing can compensate for the absence of neatness. We may have been deceived, and have purchased almost worthless varieties of trees and shrubs, but that is no reason for allowing them when planted to become a disgrace to the garden; if good for nothing, pull them up, and if unable to buy others, let the green grass fill their places; if possible to disencumber ourselves of the idea that the greater or less first cost constitutes cheapness, believe the experience of those best qualified to judge, that it is never economy to buy ill-shaped, unhealthy trees, or bad varieties because they are sold low; nor yet that it is good economy to get trees &c., from the woods, because they cost nothing; taking into account the first cost of getting them, the long time they stand, almost bare poles, and the usually inferior shapes they assume when they do grow after much pruning and coaxing, nursery trees are far best and cheapest. I have no time to enter upon the minute of roots and branches to prove this, as may easily be done, but must leave that for the future. In respect to gates and fences, build the cheapest consistent with strength, the most unpretending and unobtrusive, for there is no surer indication of bad taste and pretensions, than a costly carpenter's monument of white pine and white paint. Make the fence simple, of good but cheap material (rustic poles very good!) and then paint it a dark color; why cover your fences with white, so as to force your boundary lines on

your own and every one's else eye, at the same time making a direct violation of the harmonies of nature; the same may be, and has been said of painting houses. What can be more glaring and disagreeable in a hot day than the sunny side of a white house, dazzling the eye, as much as the sun! Vines and trees relieve the glare, somewhat, but the effect is almost always forced and unnatural.

Is the argument of the durability of white, (even if it can be proved to be more lasting than other colors) enough? Did any man ever wear iron pants and coat for their durability? If durability is the aim, build of stone, when you will get it, and harmony of colors at the same time.

Finally, we all remember that neatness, order and beauty outside, indicates the same within; and to quote from a learned European, "the care of flowers and cultivation of plants, do not merely contribute to the maintenance of health; they soften the passions, and elevate the taste above the affairs of every-day life. In the home around which we see a well kept garden, internal order almost always prevails; and where there is a flower stand outside, there is almost always a book shelf within." R. MORRIS COPELAND.

Roxbury, March 24, 1854.

EXTRAORDINARY EXOTIC.—A fine specimen of a magnificent tree, recently introduced into this country from California, is now growing in the neighborhood of Exeter, at the nursery of Messrs. Jeitch. This tree, from its extraordinary height and large dimensions, may well be termed the monarch of the Californian forest; it grows in a solitary district on the elevated slopes of the Sierra Nevada, at an elevation of 5,000 feet from the level of the sea. From 80 to 90 trees exist, all within the circuit of a mile, and varying from 250 feet

to 320 feet in height, and from 10 to 20 feet in diameter. The cones are about two inches and a quarter long, and two inches across at the thickest part; the trunk of one tree, which Messrs. Veitch's collector (Mr. Lobb) saw felled, was perfectly solid, from the sapwood to the centre, and, judging from the number of concentric rings, its age has been estimated at 3,000 years. Of this vegetable monster 21 feet of the bark, from the lower part of the trunk, have been put in the natural form in San Francisco for exhibition; it there forms a spacious carpeted room, and contains a piano, with seats for 40 persons. On one occasion 140 children were admitted without inconvenience.

SOWING CLOVER SEED.

Where clover seed was omitted in laying down lands to grass last fall, it may very properly be done now, and probably with complete success. Our own opinions on the subject are well sustained in the article below from the Philadelphia *Dollar Newspaper*.

In answer to an inquiry in the last number of the "*Newspaper*," as to the best time to sow clover seed, I remark that it is my opinion that the spring or winter is the best time, for the following reasons: Clover sown in the fall, is apt to be killed. First.—By the dry weather which usually prevails in October and November. Second. If the weather is favorable, and the clover should get a start, the action of the frost would be more liable to destroy the young and tender roots, especially in a clay soil, where I have seen the clover drawn entirely from the ground, by the expansion of the soil from frequent freezing and thawing. I have always succeeded by sowing in March. The first good snow that falls in the month of March, sow your seed, and, as you can see it on the snow, you can sow it more evenly than when sown on the ground, and when the snow melts, it leaves the ground soft and moist, and the seed is buried evenly at the proper depth. When the first warm weather comes it springs up and becomes sufficiently vigorous to live through the succeeding fall and winter.

PLUMS—THE CURCULIO.

SIR:—As I am a reader of your *Weekly Tribune*, I saw a statement in your Address at our State Fair wherein you mention that Dr. R. T. Underhill, of your State, succeeded in saving his Plums from the ravages of the Curculio by planting his trees so as to have them hang over water. Now, since every one has not such a situation, I will mention how Mr. Joseph H. Mather, of Goshen, 20 miles south-east of this place, succeeded in saving his Plums this season. After having tried many ineffectual remedies, and when the Curculio had already commenced its work, he mixed sulphur and lard with a little Scotch snuff and rubbed it freely upon the body and branches of his trees. In a few days the Curculio had all left. The consequence was that he had such a crop of Plums that he was obliged to prop up the branches to keep them from breaking off.

I shall try the remedy next season. If you think the recipe worth printing, you can do so. I see no good reason why it will not do as well for

others as for Mr. Mathews.—REUBEN CHAPIN, in *N. Y. Tribune*.

For the New England Farmer.

LARVÆ OF THE CRANE FLY.

SIMON BROWN, Esq.:—Dear Sir—Yesterday, Mr. Flint brought to me the bottle of grubs, which you sent by him. He said that they were found in considerable numbers, on snow in Concord lately, and that they were alive when taken; but they were dead when received.

They are of a livid or pale brownish color, about half an inch long, thickest at the hinder end of the body, and tapering towards the other end. Above the vent, there is a kind of coronet of short spines, four of which are longer than the others, and the latter are black at the points. These grubs are the larvæ or young of some kind of crane-fly or *Tipula*, and resemble the figures of the larvæ of the European *Tipula cornicina* and *Tipula oleracea*, two species vulgarly called daddy long-legs, in England, and well known there for their injury, in the larvæ state, to the grass-roots of meadows. In the volume of "Insect Transformations" belonging to the "Library of Entertaining Knowledge," will be found a short account of the European insects above named, pages 252 to 255 inclusive, to which I beg to refer you. The Concord grubs, like their European prototypes, probably lived in the ground upon the roots of grasses. How they came to be dislodged from their quarters I cannot tell.

Respectfully yours,

THADDEUS WILLIAM HARRIS.

Cambridge, Mass., March 16, 1854.

For the New England Farmer.

HOW TO MAKE THE BUTTER COME.

MR. EDITOR:—I noticed in your valuable paper of Feb. 18th, 1854, an article headed "Why don't the butter come?" I have waited until now to see if some one would not give the information which Mr. JOSEPH H. WELLES, of Columbus, Ohio, inquired for; I would inform Mr. Welles that I suppose it is a species of garget that troubles his cows. I have been in trouble like his several times, and have as many times found that a little nitre, commonly called salt-petre, administered to my cows occasionally, has been an effectual remedy; in a dose not more than a table-spoon even full, given every other day, for two or three times; it is equally effectual in summer as in winter; pulverize it and give it in grain or meal.

E. MARSH.

Montpelier, Vt., March 13, 1854.

ELASTIC HORSE SHOE.—We are glad to find that the inventive genius of the day has been exercised for the direct benefit of the animal of all others the most worthy of such regard. Mr. J. O. Jones has invented and patented, and is now manufacturing in this city, an Elastic Horse Shoe, which is regarded by those who have seen and used it as an effectual preventive for all the troubles to the feet of the horse which are caused by constant concussion upon stone pavements and hard roads. The shoe is made of German spring steel, with India rubber inserted in the heels to give it elasticity.—Traveller.

For the New England Farmer.

FARMING IN NEW ENGLAND—NO. 4.

I turn aside this week from the regular series of papers on New England farming, to answer "Agricola," who puts to me in your paper of the 11th instant, the following inquiry:

"Will your correspondent 'D. C.' inform your readers in what respects the New England farmer cannot compete with the Western farmer, whether in the profits or amount of produce?"

On a close examination of this question, it appears to be extremely indefinite, and perhaps it may be said to be no question at all. The "profits" of farming are so necessarily involved in the "amount of produce" raised, that the two things cannot be separated, and therefore do not admit of a separate consideration, or of any direct comparison. I might, therefore, with entire respect to "Agricola," abstain from any argument upon the subject, till he presents the point of his difficulty in a more tangible form, or in a shape which involves some logical consistency and some real issue. How can any man institute any comparison between Eastern and Western farming, so as to show whether the former can "compete" with the latter, unless the "profits" of both are estimated, and how can such an estimate be made, unless the "amount produced," at the East and West, respectively, be taken into the account? If the Eastern farmer can raise one bushel of corn as cheaply as the Western, after the difference of interest in their landed investments—the difference in the price of labor and other expenses, the difference in the prices which they get for the bushel, when it is sold, are considered; it does not follow that they stand on the same level, because the much greater "amount" which the Western farmer can raise on his more numerous and richer acres, may most materially affect their relative incomes. It is an admitted fact that a farmer here who raises seventy-five bushels of corn to the acre, realizes a greater percentage of profit, than his neighbor who raises only forty bushels to the acre, for the expenses to the one, relatively to the "amount produced," are less than those to the other. It is on this principle that we all regard those farmers in New England, who always raise the largest crops on the same number of acres, as the best farmers. They are the best farmers either because their lands are the best, or because they are cultivated the best, or both. On either supposition, they are the best farmers, because they bring about the greatest results, relatively to the expenses they incur.

Precisely so it is, *mutatis mutandis*, or as between the Eastern and the Western farmer, only that the Western has this immense additional advantage in his hands, he can put many more acres every year into corn, relatively to the Eastern farmer, than the best Eastern farmers can, relatively to their competing neighbors. The "profits" of farming, then, both at the East and the West, are so intimately connected with, or rather so indissolubly involved in the "amount produced," that no intelligent or intelligible argument can be instituted between them.

But I would recall the attention of "Agricola" to the real and obvious meaning of my argument, on which his inquiry is based. I did not say that the New England farmer cannot, under any circumstances, successfully compete with the West-

ern, but that he cannot do so, without bringing to his aid the helps of science, and of superior industry and skill. Summoning these to his assistance, he will approximate much more nearly to his Western competitor, in valuable results, if he does not actually exceed him. "Agricola," therefore, has presented a question which, in its own terms, is logically absurd, and one which does not grow out of my argument, considered in the conditions in which it is stated.

But, waiving both these difficulties in the way of making any direct reply to his inquiry, there are certain well authenticated and stubborn facts, which throw much light upon the general subject under consideration between us.

In the reports made to the Commissioner of Patents for the year 1852, by some of the most intelligent farmers in New England and the Western States, they state the average amount of wheat and corn raised to the acre, in their respective localities, and also the cost of production. There is a singular and wide discrepancy in the results, among the farmers of Maine and Vermont, for example, and an equal want of agreement among the farmers at the West, as to the average amount raised per acre; and the expense of producing the same. These statistics are therefore by no means so accurate and reliable as they should be, and yet some conclusions, approximative to the truth, can be gathered from them. By a somewhat careful collation of these numerous and discrepant reports, we come, I apprehend, to this general result. With regard to the article of wheat, in our imperfect and generally unscientific methods of cultivating the soil, we make no approach to a successful competition with the Western farmer, either as it regards the amount raised, or the cost per bushel. New England does not raise one-fifth part of the wheat which is consumed by her own population. We should undoubtedly raise a much larger quantity, if it could be done profitably, but it cannot be done profitably, so long as our modes of cultivation are so imperfect, and the Western soils continue to be so highly adapted to its production. It is most manifest, therefore, that New England does not now successfully compete with the West in the raising of wheat, "either in the profits or amount of produce."

In respect to corn, pork, beef, hides, wool, live hogs, butter and cheese, we stand in a somewhat better relation to the West, though the immense quantities of these articles which find their way from beyond the Hudson to the Eastern markets, will astonish any one who will examine the statistical returns on the subject. Of all these articles, we import for our own consumption a far greater amount, than we export of our own production, for the consumption of others. Indeed, we export none at all of our own producing. In not one of these important articles of living, do the farmers in New England supply our own wants, much less do we have any to spare for our neighbors in Ohio, Wisconsin, Virginia, New York, Ireland or England. So long, therefore, as our present mode of cultivation continues, it is as clear as the sun in mid heaven, that notwithstanding the higher prices which obtain in New England, we can never successfully compete with our Western friends, in any of the great branches of agriculture. That can be done, only by superior science, greater skill and more untiring industry. D. C.

Waltham, March, 1854.

REVIEW OF THE PAST AND THE PRESENT CONDITION OF AGRICULTURE.

I propose, in my first Report, to review the past and present condition of the Agriculture of Massachusetts. The past will be found, it is thought, full of interest and instruction; the present, full of encouragement and hope. The discussion of special subjects will be left to a future occasion, with the exception of such suggestions as seem to spring naturally from the facts stated. This seems, indeed, to be the only course which can be pursued. Previous to the organization of the present Board, there has been no permanent department or public officer, whose special duty it was to collect the facts necessary for the guidance of the Legislature, and the various societies in their efforts to advance the cause of Agriculture among us. The principal object of the Board, during the past year, has accordingly been to procure the desired information. It is these doings, which I now have the honor to report for your consideration.

We cannot, without some little reflection, make full allowance for the difficulties which surrounded the early settlers of New England. We must remember that they exchanged a country far advanced in civilization,—and notwithstanding its rude tillage and its large tracts of uncultivated moors, probably better cultivated than any other on the globe,—for one entirely new to them, with a climate and soil unlike any which they had known before. They were to begin a life in which their previous experience could afford them little or no aid, in a wilderness which was to be subdued by their own hands in the midst of a thousand obstacles. The system of cultivation which they had learned and practised in their own land, would not serve them here. They were to start anew, and acquire, painfully and laboriously, the knowledge which was applicable to their new situation. If we find their progress to be slow, let us not wonder that it was so; we should rather wonder that they advanced at all, or even that they did not perish in the wilderness amid the privations and the sufferings of winter.

For many months after their arrival, they had no beasts of burden; when at last a few cows were brought over from the mother country,* they were poorly fed on coarse meadow hay, and often died from exposure and want of suitable food, or fell a prey to the wolves and the Indians. Owing to the difficulties and expense of importation, the price was so high as to put them beyond the reach of many, even in moderate circumstances. A red calf soon came to be cheaper than a black one, on account of the greater probability of its being mistaken for a deer and killed by the wolves. When cows were so high as to sell in 1636, at from twenty-five to thirty pounds sterling, and oxen at forty pounds a pair, a quart of new milk could be bought for a penny, and four eggs at the same price.

It should be borne in mind, also, that the cattle of that time, even in England, were not to be compared with the beautiful animals now seen there. The ox of that day was small, ill-shaped, and in

every way inferior to the ox of the present time. The sheep has, since then, been improved to an equal, or even greater extent, both in form and size, and the fineness and value of its wool. The draught horse, so serviceable on the farm, long the pride of London, and now equally of Boston, and the noble breed of race horses, so celebrated for their fleetness, were not then known. It is difficult to appreciate fully the changes, which the increased attention to agriculture has effected in domestic animals, even within the last century.

During the early part of the last century, the average gross weight of the neat cattle brought for sale to the Smithfield market, was not over three hundred and seventy pounds, and that of sheep, twenty-eight pounds. The average weight of the former, is now over eight hundred pounds, and of the latter, over eighty pounds. On account of the high price of cattle at that period, and the risks to which they were to be exposed, it is not probable that the settlers purchased even the best specimens of the animals then known in England. Such being the state of things, we may easily imagine that the first cattle imported into New England, were of a very inferior quality.

Nor was the difficulty of procuring agricultural implements the least of the obstacles which the early settlers had to encounter. Some were imported from the mother country, but all could not obtain them in this way. The only metal to be had was made of bog ore, very brittle, and liable to break and put a stop to a day's work. The implements of agriculture seem, for the most part, to have been made from this metal, and with comparatively little fitness for the purpose for which they were designed. Even those imported from the mother country were not only of the rudest construction, but were also extremely heavy and unwieldy; for the men of that time had not discovered the art of diminishing weight without lessening strength. The process of casting steel was not invented till more than a century later, (1750) and then it was kept a secret in Sheffield for some years. The number and variety of implements have been infinitely increased, even within the last half century, to meet the wants of a more advanced husbandry, to which, indeed, these mechanical improvements have, in their turn, largely contributed.*

It is true that the Pilgrims, on their arrival in this country, had the benefit of the plants at that time cultivated and used as food by the Indians, yet they were wholly unaccustomed to these, and were ignorant of the mode of using them as food, and of the manner of their cultivation. Indian corn, the staple product, and the pride of America, had never been seen by them. Pumpkins, squashes, potatoes and tobacco, were almost equally strange to them.†

* The colonists do not seem to have been provided with plows; for we find that twelve years after the landing at Plymouth, the farmers about Boston, having no plows, were obliged to break up the bushes with their hands and hoes, to prepare their lands for cultivation; and even so late as 1637, there were but thirty-seven plows in the whole State. It was the custom, even to a much later period, for one owning a plow, to do most of the plowing in a town; going about from one part of the town to another. The town often paid a bounty to one who would buy and keep a plow in repair, to do work in this way.

† The potato was so rare in England at the beginning of the 17th century, as to be served up only in very small quantities. It was sold at two shillings a pound, for the queen's table, and was used as a fruit, baked into pies, seasoned with spices and wine, and sometimes eaten with sugar.

* The first cattle were imported by Edward Winslow, in the ship *Charity*, March, 1624. Having been sent out as agent by the Plymouth Colony, he brought over four animals, three of which were heifers. One authority says they arrived in the ship *Ann*, the first voyage of which was made in 1623; but there can be no doubt that the cattle referred to, at the time of the distribution of cattle in 1627, came in a subsequent voyage made by that vessel.

When their necessities taught them the value of these plants, they were not slow in adopting the Indian methods of cultivating them. As the general cultivation, in the colonies, continued much the same for many years, with only slight modifications on the introduction of the plow, it may not be inappropriate to turn our attention, for a moment, to the agriculture of the natives.

It is well known, that most of the hard work necessary to supply their limited wants, fell to the lot of the women, assisted, sometimes, by old men and little boys. Among their thankless tasks was that of farming, which they carried on to an extent quite remarkable, when we consider the rudeness of the tools with which they worked, and the circumstances in which they were placed. They had no art of manufacturing metal, and of course could have no proper implements of agriculture. Their cultivation was not so rude, however, as one would naturally suppose. They made a kind of hoe by tying the shoulder blade of a moose, bear or deer, to a stick or pole.

The land, when selected, was cleared, by keeping up a fire around the foot of each tree till its bark was so burned that it would die. They then planted their corn. When a tree fell, it was burned into pieces of such a length that they could be rolled into a heap and burned to ashes. In this way, by degrees, a piece covered with wood, was wholly cleared. An industrious woman could burn off as many dry fallen logs in a day, as a strong man could, at that time, cut with an axe in two or three. They used a stone axe, made much in the same way as the hoe above described, to scrape the charred surface of the logs, and hasten the burning. This mode of clearing was common through the western part of the State. In the eastern part, the tree was sometimes girdled with the axe, and thus killed, was allowed to dry, and then burned by kindling a fire around it, as above described.

They taught the settlers to select the finest ears of corn for seed, to plant it at the proper time, and in a proper manner, to weed it, and to hill it. They were accustomed to dig small holes four feet apart, with a clumsy instrument, resembling the one described, which, in the eastern part of the State, was sometimes made of large clam-shells. Those living in the vicinity of the sea-shore, put into each hole a horse-shoe crab or two, upon which they dropped four, and sometimes six kernels of corn, and covered it with the implement with which they had dug the hole. In the interior, a few small fishes in each hill were used as a fertilizer. Beans were planted with the corn after it had come up, and grew up supported by it. Great attention was paid by them to the protection of their growing crops. Not a weed was to be seen in their fields, and the corn was carefully guarded against destruction by insects and birds. To prevent loss by the latter, a small watch-house was erected in the midst of a field of corn, in which one of the family, often the oldest child, slept, and early in the morning rose to watch the blackbirds. It was their universal custom to hill the corn about two feet high, for its support, and spots may often be seen at the present day, which were evidently cultivated by them. The colonists very generally imitated this custom, and it has been continued down to our own times. The men planted and cured their tobacco, which

was, ordinarily, the only plant they worked upon, the women managing all the rest.—*Flint's Report of Mass. Board of Agriculture.*

For the New England Farmer.

THE CROW—WINTER WORMS.

FRIEND BROWN :—I find in the weekly *New England Farmer*, Vol. 9, No. 3, an "Ode to the Crow," written by Mr. SOUL, in which he gives that bird a bad name, looking only at the dark side of his character; now if this rule alone is to be observed, of judging of evil deeds, I fear we should have but very few birds, beasts, or men, that would not stand as low as Mr. Soul places the crow. It is my purpose now, however, to mention but one act of his kindness, which I noticed to-day.

You probably have received those worms I sent you, yesterday, which I found by the side of my meadow. As I was passing over that meadow, my attention was drawn to something on the snow and ice. I accordingly stopped, and on examination found great numbers of worms, which in their acts and looks, were unlike any thing I ever saw. I will not attempt to describe them, but as you have some of them, I wish you or some one of your friends, more able than myself, would do it. They were as thick in spots as a person would sow oats; some of them crawling on the top of the snow and ice, others in the water, whilst a great many were apparently crawling up through the ice and snow, all having life and animation. I looked on the ground where the snow was all gone, and there I found a number, but not having my glasses with me, I couldn't readily see them. But I have strayed a little from the crow, but not from his food. To-day, I heard a great cawing of the crows, and on looking up, behold! there were hundreds of them lighting and lit on the same piece of land where I had discovered the worms, apparently as happy as ever were pigs in clover, and as busy picking up something as ever a hen was picking oats. I waited until they were all gone, then went to see if they had taken any of the worms, and to my delight they had taken nearly every one of them that were on the snow, but I noticed that they were just as busy on the bare ground as they were on the snow, and I have no doubt but they found the worms as plenty there, although I could not see as many; neither have I any reason to believe that the worms were gone before the crows came, for there was a corner of the field on which the crows did not go, and there I found the worms after the crows had gone. Here, now, is one kind act which I believe to be of more real value than all the damage the crows ever did me. I hope they will continue to visit me daily for one month, at least. My particular object in writing this, is to know if these worms may not be the same as the palmer worm that infested our country last year, although they are somewhat changed in their looks and actions. If you, or any one else can give an account of them, and their habits you will much oblige,

J. B. FARMER.

Concord, March 10, 1854.

REMARKS.—We would inform Mr. FARMER, that we sent the bottle of worms to Professor HARRIS at Cambridge, and that to-day, the 18th, we have

received a note from him in relation to them which we will publish next week.

TENTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, MARCH 21.

SUBJECT.—*Neat Cattle*—*What is the best method of improving the stock of animals to be kept on our farms?*

The meeting was called to order by Mr. SIMON BROWN, Chairman of the Executive Committee, and Hon. B. V. FRENCH, of Braintree, was invited to preside for the evening.

Mr. FRENCH, on assuming the chair, introduced Mr. SANFORD HOWARD, of the *Boston Cultivator*, who proceeded to deliver a very interesting lecture on the subject of farm stock.

Mr. HOWARD opened with a succinct history of the domestic ox, its origin, kindred species, &c., which displayed considerable research and a full knowledge of the subject. The ox, he said, could not be traced to any extinct race of animals, or to any now in existence, and although there is generally supposed to be but one species of the domestic ox, yet there are different breeds, varying in their characteristics. Breeds are of two classes, natural and artificial, the latter being the result of man's agency—as the Ayrshire cattle may be called an artificial breed.

The object in breeding cattle should be to propagate varieties which combine most fully those qualities needed for a specific purpose, as for beef, milk, or labor. These qualities are somewhat antagonistical, particularly fattening and milking. Fat cattle should be marked by fulness and rotundity, while the milch stock should be characterized by flatness rather than roundness. The animal, too, which has the greatest tendency to fatness has insufficient muscle and nervous energy, for labor. Stock can be best improved by cultivating for specific purposes. Some farmers think a stock should be obtained which will combine all qualities, but this is unreasonable. No farmer expects to get his clothes, shoes, farming utensils, &c., all made by one individual; and on the same principle, he should rear stock for particular uses. A great point in rearing stock is to provide sufficient food and shelter, for until this is attended to, it is of little use to talk about breeds. Farmers lose immensely every year by insufficient feeding. As to breeds of cattle, nothing definite can be said, in reference to this section of country, because no adequate experiments have been made in this matter in this section of the country. Different breeds are required for different localities. Mr. HOWARD submitted the following list, as the best he could recommend:—

As Dairy stock, on poor and rough soils, the *Kerry* breed, which is indigenous to the mountains of Ireland, and represented by all authorities as

combining a remarkable hardness of constitution with superior dairy qualities, especially for butter.

2d. For better soils and milk-selling establishments, the *Ayrshires*.

3d. For cities and towns, the *Jerseys*, at the same time testing them by fair trials as to general adaptation.

4th. A selection from the common or so-called *Native* stock, to be subjected to a systematic course of breeding.

5th. Crosses of the *Ayrshire* and *Jersey* with the common stock, the offspring to be kept separately for such a period as may be necessary to test their qualities.

For fat stock, of secondary value for dairy purposes,—on poor and rough soils and severe climate, the *West Highland Scots*.

2d. For somewhat better soils, *GALLOWAYS* and *DEVONS*.

3d. For medium soils, *HEREFORDS*.

4th. For the best soils and a milder climate, the fattening variety of *SHORT HORNS*, tried also in comparison with the *Herefords*.

The *Herefords*, *West Highlanders*, and *Devons* are excellent draught cattle. Our climate is a very trying one for cattle, on account of its extremes of heat and cold, and this is one reason why the *Short Horns* have so seldom succeeded in New England. The *Western Highland* breed is a very hardy one, and fatten as readily the third year as any other variety. In England it is considered the model in the improvement of all other breeds as to form.

At the close of Mr. HOWARD's lecture, Col. NEWELL, President of the Essex Agricultural Society, inquired of him the qualities of *Ayrshire* stock as working cattle.

Mr. HOWARD said he had never known full-blooded animals of this stock to work well. He, however, had no acquaintance with them as working cattle—only as dairy stock.

Mr. SPRAGUE of Duxbury, said he was familiar with the breeds of cattle kept on Mr. Webster's farm, embracing several foreign varieties. The farmer in charge esteems the *Devons* as the best working cattle. The *Durhams* are slow, although possessing great strength. Some people say that *Ayrshires* are smart and good workers, and others say that they are vicious.

Mr. SHELDON of Wilmington, said he had a yoke of *Ayrshire* oxen from the Webster farm at Franklin, N. H., which he purchased last August from Mr. Ames. They are stout, active cattle, fully equal to any he ever had. He thought he had never owned any cattle which would travel twenty miles quicker than they, although he had never owned lighter cattle. They plowed last year at Concord and obtained the first premium, fin-

ishing their lot six minutes quicker than any other. The Durhams he considered best for beef.

Mr. FRENCH, the Chairman, said that, after considerable experience in raising cattle, he had come to the conclusion, that the milking properties of an animal were matters of mere chance,—good qualities in this respect not being confined to any particular breeds. Ayrshire are about as good for milk as any, but their forms are not so good. The best ox he ever owned came from Worcester, and was of the Holderness breed. The Herefords are a good breed, well adapted to the country, large, good milkers, and making good beef. The Alderneys are very popular now, as yielding very rich milk, and being gentle, but they are not much for beef or working. The Devons are altogether too heavy for this section of the country; they may do well with the blue grass of Kentucky, but they generally fail on the short feed of this region. He had tried Ayrshires and Durhams, but had given them up, and was now trying Devons, which he found to be fair, good milkers. In England the largest recorded yield of milk, was given by a Devon. One good quality which they possess, is an almost unvarying uniformity of color, a pure red, which may vary a shade in different animals, and they possess great symmetry of proportion. Their beef commands a higher price in the New York market than any other, being sought after by hotel-keepers, on account of its juiciness. He felt well satisfied that his Devon oxen were unsurpassed by any other breed; they are smart and tractable.

Mr. LINCOLN, of Worcester, said he knew of half-blood Ayrshire oxen which were excellent working cattle, but had never seen any full-blooded. They are quick, active and hardy, and teachable, and what some called high spirited, but what he called *timid*. He owned all the Ayrshire stock of the late Col. LINCOLN, and did not think more gentle cattle could be found on any farm. He considered the red Ayrshires equal to any breed, and as surpassing the Devons in activity.

Col. NEWELL, of Essex, thought the foreign breeds of stock, should be kept pure. The Ayrshire, if kept pure, would furnish the best milk stock for Massachusetts.

Mr. DODGE, of Worcester, thought that as good a way as any, in raising stock, was to select the best animals, without regard to their breed. We have not paid sufficient attention to the subject in this country, to establish any general rules.

Mr. FRENCH alluded to the necessity for a State institution where the question of the comparative value of different breeds could be satisfactorily settled.

Mr. CORBIN, of New Hampshire, said a great deal must be allowed for difference of climate in different States. The great butter and cheese producing States of the Union are North of Pennsylvania. While in Florida more cows are kept in

proportion to the population, than in New York, the latter produces 45 lbs. of butter per cow on an average, while Florida yields but one 100th of a lb. per cow. One breed of cattle may do best in a locality where another would fail.

Mr. Brooks, of Princeton, thought farmers did not pursue their systems of stock raising long enough. It takes a good while for foreign stock to get acclimated.

The subject for next Tuesday evening, is—*Sheep*; can they be advantageously kept on our farms? if so, the best kind for this purpose.

For the New England Farmer.

THE "WITCH HAZEL."

OR, THE PHENOMENA OF RHADOMANCY.

MR. EDITOR:—In your journal of Feb. 11th, I noticed a few remarks upon the Witch Hazel, and its utility in detecting the localities of water and precious metals in the earth; and I beg leave to lay before your readers a few additional facts, and some remarks thereupon.

A year or two since, I witnessed some experiments with the "hazel wand," and had an opportunity to test its action. A crooked stick was cut and carried in a perpendicular position, a branch of the croch being held in each hand. The diviner, so to call him who carried the rod, slightly stooping, walked slowly along; for a short time the rod remained upright; but suddenly it commenced dipping, and continued so till it pointed directly to the earth below. This was repeated several times and it was found that in whatever direction this locality was approached, the same depressions of the rod would take place. But, in order to preclude the possibility of deception, two of those present held firmly in their hands the ends of the stick which extended beyond the hands of him who carried the rod. In this manner, the diviner approached the hidden water course, and the rod, as before, suddenly turned towards the earth; but so firmly was the stick held, that it was literally twisted and the bark was left in the hands.

This fully satisfied us that there was no deception, and further experiments proved, that in the hands of certain persons, the "hazel wand" would veritably indicate the localities of water in the earth.

The same diviner was requested to examine a certain piece of ground, and decide at what depth a supply of water could be found; after a few trials, he fixed the depth at eighteen feet. In the course of a month or two, a well was dug and water was obtained as had been foretold.

Again, at a dwelling-house situated on high ground, and where a scanty supply of water was obtained at a great depth, he made examinations, and according to his directions, a well was dug near the house, and a never-failing supply of water was obtained at a depth of only eight feet.

Instances of highly successful experiment might be multiplied, but, I forbear to weary any one's patience with miraculous predictions out of my own personal knowledge. I have seen several others try the experiment, but with no success, except in one case, and that only partial. The rod, in all cases which I have observed, rotated in the same direction, that is to say, from before, back-

ward; but upon mines of coal and iron, it has been ascertained, the rotary movement takes place in a contrary direction.

In the mining districts of the West, it is stated upon credible authority, that the veins of lead are discovered in this way, and that failures never occur, except in the hands of those whose nervous temperaments are apt to vary. But it is believed that the rod is attracted, not by the metal itself, but by currents of water flowing constantly over the deposits of lead.

With these facts before us, we must concede the existence of the divining power in certain persons. Rhabdomancy, or the method of divining as above described, has engaged the attention of the first philosophers from the earliest ages. It is not to be accounted for by any species of legerdemain or deception, nor solely by magnetism or electricity, though by these agents some plausible counterfeits have been produced. But, however nameless the invisible agent may be, we must concede that it emanates from certain localities in the earth, ready to act upon the organisms of all susceptible to its influence. Now this mundane agent must necessarily be developed by some action, chemical, material, or of the electric force, constantly going on in the earth. That such actions are taking place at all times and that they are attended with a remarkable evolution of force, is beyond a reasonable doubt. To quote another, "Force shows itself in every thing that exists in the heavens or on the earth. It pervades every atom; rules the motions of animate and inanimate beings, and is as sensible in the descent of a rain-drop as in the Falls of Niagara; in the weight of the air as in the periods of the moon. There is a physical power which not only binds satellites to their planet and planets with suns and sun with sun throughout the wide extent of creation, which is the cause of the disturbance as well as of the order of nature, but it physically binds man to man, and man to nature."

This universal distribution of force, joined with the extreme susceptibility of the nervous system to mundane agencies, constitute a *cause* capable of producing an *effect* as wonderful as any of the anomalous phenomena of the present day.

Let every one that feels an interest in the matter, test the action of the "hazel wand" in his own hands, and ascertain whether or not his nervous organism is susceptible to the influence of this invisible agent. "Study Nature and her operations," and the tide of superstition will flow back from the shores of the civilized world, presenting a broader, clearer view of the hitherto unsuspected relation in which we stand to the universe. SPARTACUS.

Lexington, Feb. 20th, 1854.

For the New England Farmer.

SAVE THE BONES.

MR. EDITOR:—I herein enclose two dollars for the *New England Farmer*, which still continues to be a plain, common sense paper, and the one price system I admire, which you spoke of in one of your late numbers. It gives me great pleasure to see that the people are getting interested in agricultural affairs, in the good old Bay State. I hope the time is not far distant, when the Maine people shall be more interested in the cultivation of the soil, which is at present but poorly done.

There is one thing which I wish to make mention of, which is in regard to the bones which are thrown away, or kicked about for a season and then carted off with the rest of the rubbish, into some by-place: Now if every family would save them, it would be a profitable business for many people throughout the country, to collect and grind them for use. If there is any profit in shipping them to Europe, there must be in keeping them at home. I think they are worth as much as guano, pound for pound, if not more. I do believe there are thousands of dollars lost every year, by throwing them away. S. W. JENNINGS

North Wayne, Me., 1854.

MIDDLESEX COUNTY SOCIETY.

The Middlesex County Agricultural Society offers the following Premiums for the encouragement of Agriculture, Household Manufactures, and the cultivation of Trees, within the County of Middlesex.

We would call the attention of our friends to the section on *The Dairy*, as one of unusual attraction and importance. In addition to the regulations there laid down, we would recommend to all competitors to *weigh their cows on the first day of June and the first day of September*; then, knowing the weight of each animal and the amount of milk yielded in a given time, a pretty fair calculation can be made as to the comparative value of large and small cows. We understand the committee on the subject will require full and precise answers to all the questions propounded.

FARMS.

For the best cultivated Farm, regard being had to the quantity of produce, manner and expense of cultivation, and the general appearances of, the Farm—all statements to be made in writing, \$25 00
For the next best, one set Transactions of the Massachusetts Society for the promotion of Agriculture. 12 00
For the next best,

PEAT OR BOG MEADOW.

For the best conducted experiment on not less than one acre of Wet or Swamp Meadow Land, in reclaiming the same for a period of at least three successive years, with an exact statement of the mode of reclaiming, expenses, &c. 12 00
For the best experiment on similar land, appropriated to the growth of Wood, 8 00

CRANBERRIES.

To the person who shall exhibit the best result, from the artificial production of Cranberries, from seed or by transplanting, by experiments made in a term of not less than three years, in the County of Middlesex, accompanied by a full and particular description of the process of cultivation, \$50.00, to be awarded by a Committee specially appointed for that purpose.

FOREST TREES.

For the best plantation of White Oak Trees, not less than one-half an acre, nor fewer than 500 trees thereon, to be raised from the acorn since 1839, and which shall be in the best thriving state in the autumn of 1854, one set Transactions of the Massachusetts Society for the Promotion of Agriculture. 15 00
For the second best, 12 00
For the third best, 12 00
For the best plantation of White Ash Trees, not less than an acre, nor fewer than 150 trees thereon, to be raised from the seed, and which shall be in the best thriving state in the autumn of 1854, 15 00

For the second best,	10 00
For the third best,	8 00
For the best plantation of Elm Trees, not less than $\frac{1}{4}$ of an acre, nor fewer than 80 trees thereon, to be raised from the seed, and which shall be in the best thriving state, in the year 1854,	8 00
For the best grove of Sugar Maple Trees, not less than 300 trees, set out since 1849, and which shall be in the best thriving state, in the year 1854,	8 00
For the best 25 Sugar Maple Trees, set out since 1849, one copy of Emerson's Forest Trees.	

FRUIT TREES.

For the best Apple Orchard, not less than 75 trees, which shall have been planted or set out since the year 1844, and shall be in the best thriving state in the year 1854,	12 00
For the second best,	10 00
For the third,	8 00
For the best engrafted or budded Pear Trees, not less than 25 trees, set out since the year 1844, and in the best thriving state in the autumn of 1854,	10 00
For the next best,	8 00

A full statement, in writing, of the soil, mode of cultivation, and treatment in regard to insects, must be furnished to the committee.

FRUIT.

APPLES—For the best specimens, of at least 6 varieties	\$3 00
the next best,	3 00
the next best,	4 00
the next best,	3 00
the next best,	2 00
For the best single dish of Apples,	3 00
the next best,	2 00
the next best,	1 00
PEARS—For the best specimens of at least 6 varieties,	6 00
the next best,	4 00
the next best,	3 00
the next best,	2 00
the next best,	4 00
For the best single dish,	3 00
the next best,	3 00
the next best,	2 00
the next best,	1 00

The Committee on Apples and Pears are allowed \$10, to be expended in gratuities, if they deem proper.

PEACHES—For the best single dish,	2 00
the next best,	2 00
the next best,	1 00
PLUMS—For the best single dish,	2 00
GRAPES—For the best show of varieties,	3 00
the best single dish,	2 00
the next best,	1 50
the next best,	1 00

ASSORTED FRUIT.

For the best basket of Assorted Fruit,	2 50
the next best,	2 00
the next best,	1 00

MELONS.

For the best show of Melons,	2 00
the best Water Melon,	1 00
the next best,	75
the next best,	50

And the Committee allowed \$5 for gratuities.

VEGETABLES.

For the best show of Vegetables,	\$6 00
the next best,	5 00
the next best,	4 00
the next best,	3 00
the next best,	2 00

And the Committee to be allowed \$10 more for single specimens, to be awarded as they shall think proper.

WHITE MULBERRY TREES AND CULTURE OF SILK.

For the best plantation of White Mulberry Trees, not less than 150 in number, which shall be in the best thriving condition in the autumn of 1854,	18 00
For the next best,	10 00
For the next best,	8 00
For the next best,	7 00
For the best specimen of Silk, not less than 2 lbs.	8 00
For the next best,	7 00
For the next best,	5 00

Certificates will be required of the manner and expense of growing the Silk, with evidence accompanying the same.

AGRICULTURAL EXPERIMENTS.

For the greatest quantity of Rye on an acre, not less than 30 bushels to the acre,	10 00
For the greatest quantity of Indian Corn on an acre, not less than 75 bushels to the acre,	10 00
For the greatest quantity of Potatoes on an acre, not less than 300 bushels to the acre,	8 00
For the greatest quantity of Carrots to the acre, not less than $\frac{1}{4}$ of an acre, and not less than thirty thousand pounds to the acre,	10 00
For the greatest quantity of Wheat on an acre, not less than 30 bushels to the acre,	6 00

FLAX.

For the best experiment in the cultivation of Flax, on not less than $\frac{1}{4}$ of an acre, with a full statement of the quantity of manure, quality of the soil, weight of crop, and method of cultivation,	25 00
For the next best,	15 00

LIVE STOCK.

For the best Native Bull, not under 1 year old,	8 00
the next best,	5 00
For the best Ayrshire Bull,	8 00
the next best,	5 00
For the best Devon Bull,	8 00
the next best,	5 00
For the best Bull Calf, of any breed, not over 12 nor under 3 months,	4 00
the next best,	2 00
For the best yoke of Working Oxen,	8 00
the next best,	7 00
the next best,	5 00
For the best 3 year old Steers,	6 00
the next best,	3 00
For the best 2 year old Steers,	5 00
the next best,	3 00
For the best Milch Cow, native breed,	8 00
the next best,	6 00
the next best,	4 00
For the best Ayrshire Cow,	8 00
the next best,	5 00
For the best Devon Cow,	8 00
the next best,	5 00
For the best Bull and Cow of any foreign breed, not already enumerated in the above, each,	8 00
For the best Milch Heifer under 3 years old, of any breeds,	6 00
the next best,	4 00
For the best 2 year old Heifer,	5 00
the next best,	3 00
For the best yearling Heifer,	4 00
the next best,	2 00
For the best Heifer Calf of any breed, with a particular statement how it has been raised,	4 00
the next best,	2 00

None of the above animals, except Calves, will be entitled to premiums, unless they have been owned in the county of Middlesex at least six months previous to the time of exhibition.

Milch Cows and Heifers will not be entitled to a premium unless the owner furnishes a certificate, showing the mode of keeping, and quantity of milk given or butter made.

THE DAIRY.

The following premiums are offered through the liberality of the "MASSACHUSETTS SOCIETY FOR THE IMPROVEMENT OF AGRICULTURE," viz:—

For the best Dairy of Cows, not less than six in number, and which shall have been owned by the exhibitor, and kept within the County not less than five months previous to the Cattle Show,	\$75 00
For the second best, do. do.	50 00
For the third best, do. do.	25 00

All competitors will be required to pay the strictest attention to the following regulations:

1. The cows must be presented at the place of Exhibition, and answers, in writing, given to the following questions:
2. Where were they bred and raised?

3. What breed are they?
4. What is their age, respectively?
5. On what day did they drop their last calf?
6. At what time were they turned to pasture?
7. What was the kind and quality of pasturing?
8. What was the kind, quality and quantity of other food furnished them?
9. For how long a time was other food furnished?
10. What was the weight and *wine measure* of milk from each cow, or from all the cows, on

June 1,	Morning	Evening.	Sept. 1,	Morning.	Evening.
" 2,			" 2,		
" 3,			" 3,		
" 4,			" 4,		
" 5,			" 5,		
" 6,			" 6,		
" 7,			" 7,		
" 8,			" 8,		
" 9,			" 9,		

11. If butter was made, how much did each cow make during the days above specified?
12. How much was made from the time of turning to pasture till Sept. 10?
13. How long is your cream usually kept before churning?
14. What is the manner of preparing the butter after it comes?

The Committee will require the affidavit of one or more persons, of the amount of milk or butter produced.

FAT CATTLE.

For the best yoke of Fat Oxen,	\$3 00
the next best, do.	2 00
the next best do.	4 00

A statement of the mode of fattening, and the expense of the same, must accompany the entry.

SWINE.

For the best Boar,	\$3 00
For the best breeding Sow,	6 00
For the best Pig, not less than 3 in number, from 4 to 8 months old,	5 00
For the next best,	2 00

HORSES.

For the best Stud Horse,	\$10 00
For the best breeding Mare and Colt,	5 00
For the best 2 year old Colt,	5 00
For the best yearling Colt,	5 00

POULTRY.

For the best live Turkeys, not less than 5 in number,	\$3 00
the next best,	2 00
For the best live Geese, not less than 5 in number,	3 00
the next best,	2 00
For the best live barn-yard Fowls, not less than 5 in number,	3 00
the next best,	2 00

PLOWING MATCH.

To owners of the twelve Plows which shall be judged to have done the best work with the least expense, on 1-8 of an acre,

DOUBLE TEAMS—1 Plow, \$10; 2 do. \$7; 3 do. \$6; 4 do. \$5.
SINGLE TEAMS—1 Plow, \$10; 2 do. \$7; 3 do. \$6; 4 do. \$5.
HORSE TEAMS—1 Plow, \$10; 2 do. \$7; 3 do. \$6; 4 do. \$5.

TRIAL OF WORKING OXEN,

Will take place immediately after the delivery of the Address. All competitors in this trial must enter their names with the Secretary, before 9 o'clock on Tuesday. Trial to commence at 11 o'clock.

SPADING MATCH.

For the best performance in spading, not less

than ten inches in depth, on a piece of not less than sixty square feet of sward land; due regard being had to time, the thoroughness of the pulverization of the soil, and the state in which it is left for the reception of seed, the labor to be performed with a common square Spade. To commence at 10 o'clock.

First premium,	\$5 00	Third premium,	\$3 00
Second "	4 00	Fourth "	2 00
		Fifth "	1 00

BREAD.

To women over 20 years, or married:—For the best home-made Wheaten Bread, made with yeast, and baked on the day before the exhibition, not less than 4 lbs.	\$4 00
For the next best,	2 00
For the next best,	1 00
For the best, made by a girl under 20, and unmarried,	4 00
the next best,	2 00
the next best,	1 00

Full statements of the whole process of making and baking will be required.

BUTTER.

For the best new churned Butter, not less than 12 lbs., a set of Silver Tea Spoons.	
For the next best,	2 50
For the next best,	2 00
For the next best,	1 50
For the next best,	1 00

Certificates of the manner in which it has been made and preserved will be required.

NEEDLE WORK AND HOUSEHOLD MANUFACTURES.

The sum of FORTY DOLLARS is awarded for the best specimens of the above articles, in such sums as shall be deemed proper by the Committee who examine the articles.

MACHINES AND TOOLS.

To the person who shall produce at the Show any Agricultural Implement of his own invention, which shall deserve a reward, not exceeding *ten dollars*, to be competed for by any person though not residing in the County.

Certificates are to be produced to the Committee proving its utility.

AGRICULTURAL TOOLS AND IMPLEMENTS.

For the largest variety of the best Agricultural Tools and Implements,	\$10 00
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For the New England Farmer.

GUANO AND SUPER-PHOSPHATE.

FRIEND BROWN:—I have read your paper from time to time, hoping that I should find some reliable facts in relation to the use of guano and super-phosphate, but as yet the statements of different journals and persons are so conflicting, that I am at loss to know which to purchase for my pasture. Paris works admirably; but I want to manure it, and it must be done with one of these articles. In my last, I informed you that I had six rows planted with corn. No. 1 guano, 2 phosphate, 3 guano and paris, 4 ashes, 5 paris, and no manure in the hill of the 6th. The 1 and 3 did not come up well, as there was but little rain after they were planted, and the guano was not dissolved. This replanted where it was necessary. The phosphate grew rapidly, and could be distinguished from the other, as far as you could see, the corn ripening off much the soonest.

Result on harvesting. No. 1, 125; 2, 120; 3, 108; 4, 100; 5, 100; 6, 95 pounds. Thus we see that the guano comes out ahead, but the worms ate the roots of No. 2, so it was not really a fair test. I am inclined to think that the guano is the most durable; but think the phosphate the best for corn, as it will not injure the seed, and will bring it forward rapidly, so that the frost will not injure it!

L. W. CURTIS.

Globe Village, Feb. 18th, 1854.

REMARKS.—There are numerous causes occurring to vary the experiments made with these fertilizers. Such as you have made will satisfy you by-and-by with regard to their value, respectively.

For the New England Farmer.

HORN SHAVINGS.

MR. EDITOR:—Will you inform me through your valuable paper what substances horn is found to contain by analysis (a.) and in what quantity they should be applied as a manure? (b.) Combs are manufactured on an extensive scale in this town, and horn shavings have been employed for fertilizing purposes to a large extent, formerly, and often with the most beneficial results; yet, from a want of the desired information, they have sometimes been applied in too large quantities or on unsuitable ground. Enough has been witnessed of their effects, however, to show that they are a most powerful manure, which, under the direction of the scientific agriculturist, would increase the productions of the soil many fold. Hundreds of tons of these shavings have been sold in late years for chemical purposes; the price at present is eighteen dollars per ton, and the question is, whether they are not worth more than that for agricultural purposes? (c.) O. V. HILLS.

Leominster, 1854.

REMARKS.—(a.) The four principal organic parts of horn, that which would burn away, are,

Carbon,	51.99
Hydrogen,	6.72
Nitrogen,	17.28
Oxygen and Sulphur,	24.01
	100.00

(b.) Horn shavings have been extensively used in England, as a fertilizer, and are considered as a very powerful and durable manure. Having had no experience in the use of this article, we are not able to say what quantity it would be judicious to use; but a person accustomed to applying manures would be enabled to judge of their activity by careful observation, and arrive at correct conclusions in a single season. As they are a powerful stimulant, we would recommend that they be reduced to a fermented compost, either by the agency of horse-manure, or acids. JOHNSTON says that one ton of horn shavings ought to enrich the soil as much as five tons of blood. In consequence of their dryness, however, the horn decomposes much more slowly than the blood. Another writer, we believe HOUGHTON, says they are generally allowed to agree best with gravelly and dry, sandy

and stony loams, because as they are of a spongy nature and receive and retain moisture, they will so continue in the ground for a long time, and nourish the crops in the driest seasons. It ought not to be expected, therefore that so much benefit will be derived from horn-shavings the first year, as they will yield afterwards.

(c.) The refuse of horn was formerly sold in England for \$10 per ton; what its present value is, under a better knowledge of the value of these specific manures, we are unable to say.

PLOWMAN'S SONG.

BY THE "PEASANT BARD."

Sweet are the fields where the clover is springing,
And blithe is the carol that floats from the bough;
And soft vernal breezes a gladness are bringing
To cheer me as gaily I follow the plow.

Though hard be my toil, and dew-drops of labor
Make damp the brown locks that encircle my brow,
No envy I feel for my ease-loving neighbor,
For pride more is mine, as I follow the plow.

The lordling may boast of his titular story;
The vote-seeking grandee obsequious bow;
What care I for all their nonsensical glory!—
A FOOL OF NATURE, I follow the plow.

I muse upon those, while turning the furrow,
Who, call'd like Kishah, are glorified now!
Though hand delve in earth, yet the mind need not burrow,
But spring to the light, as I follow the plow!

Valley Farmer and Mechanic

For the New England Farmer.

EARLY JUNE BEET.

MR. EDITOR:—Below are a few lines about my Improved Early June Beet, originally in the flat turnip form, but now they run deep, and hold their bigness like Mangol Wurtzel, thus increasing the crop full one-third in weight per rod. It has been a maxim with me, (as you know when we have anything good, we want our friends to share,) to publish and circulate any thing I have, new or nice among my brother yeomen. Having found root crops quite profitable, when fed regularly to any and all my stock—promoting health, quietness and flesh, and to none more than swine. I have set about improving each kind, so as to obtain the greatest amount of the fairest roots. I have succeeded to my entire satisfaction, and much beyond my anticipation. Hereafter, I may give you another article on the subject; but just now, I will only say that I set out several bushels of my improved early June beet last spring, which did finely. I can now spare seed to any who wish to get it. I mention two surpassing excellencies of this crop. First, when the seed is soaked, it comes up so quickly, large and fair, that they can be hoed before the weeds start. Second, their rapid growth and early maturity gives an admirable feed for swine, just when they most need it. Sows and pigs like the variety, and eat tops and bottoms with avidity—with the increased milk of the sow, they grow as fast as the beets. Learning to eat and love these when young, they will winter on them perfectly well. I have now three fine sows with pig, that have had little else than roots, and weigh from 200 to 250. Milch cows

are much benefited by feeding them in the same way, before green corn comes. A second crop may be sown in the same rows where the first are pulled.

An acre sowed as early as possible for a summer supply as above, and the last for winter, pulled by the 25th of July in time to sow with turnips and bromus, will be one of the most profitable acres of the farm; giving two root crops in one season, and one early cut of bromus for green feed, the following June; or for hay or for seed, the bromus having a sprinkling of urine and water, after mowing, will give three cuts in the summer.

As ever, yours truly,
Lancaster, March 14. BENJAMIN WILLARD.

For the New England Farmer.

SUCCESSFUL BUTTER-MAKING.

MR. BROWN:—I send you answers returned, to the queries on dairy management contained in my note to Mr. Rogers, published in your paper of the last month.

1st. "The measure used was beer measure."

2d. "The feed at the time consisted of a peck of carrots to each cow, morning and evening, with sufficient good English and salt hay, and nothing else."

3d. "The milk was set for one week, churning every Friday."

4th. "The pans used were of tin—6 in number—15½ inches in diameter, into each of which was put one gallon of milk."

5th. "Crowell's patent churn, No. 2, was used."

6th. "Care was taken to prevent the milk freezing, when in the pans."

These are small items, but as the business of life is made up of items of this character, I thought they might be interesting to those who regard the experiment as worthy of notice. Especially at this time, when the State Society have wisely determined to apply their means so liberally, to the encouragement of dairy management. I know not anything they could have done better. It is most creditable to the gentlemen who proposed it, and equally so to those who so promptly adopted it. If each claimant shall be required to return distinct answers, to such pertinent inquiries as should be appended to the offers of premiums, a mass of information will be elicited, of value far greater than the amount offered. I feel confident, when the time comes, for the dairymaids of Essex, to put in their claims, there will be many claimants. Our farmers are not fond of driving their good cows, many miles to a show; but their wives and daughters are pleased with an opportunity to show what they have done at home. In this way alone, may it be determined, what may be expected of good stock, through the season. If the State Society will continue to co-operate with County Societies, where most needed; and we shall not so subdivide these County Societies, as to weaken their influence; it seems to me, our organization for improvement, will be as complete, as circumstances admit. It will not be long before some system of instructing the farmer shall be developed, worthy of Massachusetts.

Very truly yours,
Danvers, March 13, 1854. J. W. PROCTOR.

For the New England Farmer.

ONIONS AND CARROTS.

MR. BROWN:—Dear Sir,—will you be so kind as to inform me how onions and carrots are raised together, on the same ground—when each is to be sown—in what manner—on what kind of soil, and how many seed to the acre? (a.) Onions and carrots are raised extensively in Bristol, from whence we get our supply.

I have land lying on the river which produces grass much better than our common meadow, but the quantity somewhat less from year to year. I am satisfied the land ought to be plowed and manured; and I should be very glad if you would tell me what course to pursue. I do not want to plant it, as it is overflowed when freshets occur; and as these oftener occur in winter than summer, would not spring be the best time for plowing and seeding? (b.) Would ashes, leached or unleached, alone do for manure? The land is firm, and may be plowed at any season after the frost is out.

If ashes will do for this land, how many per acre?

A SUBSCRIBER.

Taunton, 1854.

REMARKS.—(a.) We have seen onions and carrots cultivated together, but do not think it the best way to cultivate either crop.

(b.) Perhaps the best way would be to seed down your land in spring upon a crop of barley; this does not choke the young grass plants as oats will. But if you lay it down early in August, we do not think it would injure the grass even if it were flooded a few weeks in winter.

FACTS IN HUMAN LIFE.

The number of languages spoken in the world amounts to 8064—587 in Europe, 896 in Asia, 276 in Africa, and 1264 in America. The inhabitants of the globe profess more than 1000 different religions. The number of men is about equal to the number of women. The average of human life is about 28 years. One-quarter die previous to the age of seven years; one-half before reaching 17; and those who pass this age enjoy a facility refused to one-half the human species. To every 1000 persons only one reaches 100 years of life; to every 100 only 6 reach the age of 65; and not more than one in 500 lives to eighty years of age. There are on earth 1,000,000,000 inhabitants; and of these 333,333,333 die every year; 91,334 every day; 3780 every hour, and 60 every minute, or 1 every second. These losses are about balanced by an equal number of births. The married are longer lived than the single, and above all those who observe a sober and industrious conduct. Tall men live longer than short ones. Women have more chances of life in their favor, previous to being fifty years of age, than men have, but fewer afterwards. The number of marriages is in proportion of 75 to every 1000 individuals. Marriages are more frequent after the equinoxes; that is during the months of June and December. Those born in the spring are generally more robust than others. Births and deaths are more frequent by night than by day. The number of men capable of bearing arms is calculated at one-fourth of the population.—English Quarterly.

KLEVENTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, MARCH 28, 1854.

SUBJECT.—*Sheep—can they be advantageously kept on our farms? If so, what are the best kinds for this purpose?*

The meeting was called to order by Mr. SPRAGUE, of Duxbury, and Mr. HARVEY DODGE, of Sutton, was called on to preside.

Mr. HOWARD, of the *Cultivator*, was called on by the Chairman to open the discussion. Mr. HOWARD said he considered the matter of keeping sheep one of the most important subjects which had been discussed here this winter. We keep live stock in this section of the country as a matter of necessity, as a general thing in order to procure our milk, butter, cheese, &c.; but if stock is to be kept to turn off from our farms in the shape of meat, there are some sections where sheep can be made more profitable than any other live stock, for this reason—they can live where other animals cannot; they can live on poor soil, of which we have large quantities. On such lands mutton can be made cheaper than beef. Our situation is approximating continually to that of the old countries in Europe, our population is increasing in numbers and density, and it is an important question how it can be fed. In England, the best mode of accomplishing this object absorbs the attention of the farmers, and they keep a great number of sheep. Mutton is eaten there in large quantities; and it is eaten more in this country than formerly. Therefore the object with us in Massachusetts, is rather to raise mutton than wool. As to varieties, it is uncertain which is most profitable, but considering the great demand for meat, some of the English mutton breeds would be more profitable than the Spanish breeds. Of the English varieties, the Leicester, South Down and Cotswold are the best. The Leicesters have demonstrated a very important point—the production of a well-defined and established breed, by crossing, and they improve every other long-haired breed in England or Europe. The Cotswold are derived from the Leicester, are larger than the latter, have more and longer wool, and have a hardy nature, but are longer in arriving at maturity, and have more lean than fat meat. The South Downs, as they exist in this country, are a somewhat artificial animal. They are a close wool sheep, of comparatively small size, active, will graze on short pastures where larger animals would hardly live, and are remarkable for the richness of their meat. There is an improved South Down breed, which does not mature quite so early as the Leicester—perhaps it is a year longer in maturing. In the English markets it brings two cents a pound more than any other kind of mutton. In time it may be made as profitable here. It is not so active as the old South Down,

and perhaps the quality of the meat has deteriorated a little, still, it is far superior to any other kind of sheep. The Spanish sheep, as a variety for wool, are unquestionably the most profitable we have any account of in the world. When properly bred, they become as hardy as native sheep. They are not so good mutton sheep, either in quality or in tendency to fatten, as the other varieties mentioned; but there is no sheep that will produce so many pounds of wool in proportion to the weight of the carcass, as the Spanish Merino. It is an original breed, and there is good reason to believe that it is the same variety which was fostered by the agriculturists of Rome. Within the last hundred years several branch breeds have sprung from it. First, the Saxony, which has a very fine wool. Another is the French Merino, a mixture of three or four Spanish varieties, but very uncertain in its progeny. A handsome, compact ewe will perhaps turn out a lamb, the very opposite of what is desired. They have been introduced into this country as a matter of speculation, which has turned out very profitably for the speculators, but whether to the benefit of the farmer, is another question. The speaker was not cognizant of any systematic experiments with this breed, but has been informed by a person who had compared them with the old Spanish stock, that they were less profitable. Another variety is called the Silesian, which is larger in size than the best Merinos of Vermont, but of remarkable symmetry and beauty, with the thickest and evenest fleeces, second only in quality to the Saxony. It is said they turn off the largest amount of wool in proportion to the carcass, of any variety. They are worthy of further trial. We see in all this, the necessity of experiment in regard to breeds, in order to give the farmer accurate knowledge in regard to the best varieties for his use.

Mr. FLINT, Secretary of the Board of Agriculture mentioned a variety called the Oxfordshire Downs, produced by judicious crossing, by an English gentleman. The cross is Leicester and Cotswold. They are of very handsome form, and promise to become a valuable variety. Wool, he further remarked, can be raised cheaper at the West, where the flocks have vast prairies to roam over, than it can here, and our farmers cannot compete on this article, while in raising mutton for the market we have the advantage. Therefore it is now the object to raise the latter. For this purpose the South Down and crosses are probably the best.

Col. NEWELL, of Essex, said he had seen some of the Oxfordshire Downs, which were in the possession of Mr. FAY, of Lynn. They are very superior sheep, and Mr. FAY, considers them preferable to any other variety. They are a cross of the Leicester and South Downs. The speaker said

there were some full blood South Downs in his neighborhood which were certainly very good sheep, large, and wool of very good quality, and they raise up a great many lambs. The Leicesters come to maturity earlier than any other sheep, but whether they are the best sheep for us, is doubtful. They are not so good for wool, and the lambs the first year are worth but very little.

The Chairman mentioned the manner of feeding sheep pursued by Mr. LAWTON, Great Barrington, in the western part of the State. He keeps 800 sheep, and feeds them one quart of corn each, per day, and all at one time.

Mr. RUSSELL, of Pittsfield, said he had noticed that the half blood Merinos did not produce so large lambs as the full bloods, but they were very fat—fatter than any other he knew of. He was firmly of the opinion that a cross of the French Merino with the South Down, would produce a most profitable variety. He saw a lot of about thirty full blood French Merinos on the Hudson river last fall, which were fine sheep, and would probably weigh 140 lbs. each, per live carcass. They were not fine woolled generally, but he picked out six or eight from the lot which had very fine wool. The wool on any of them was fine enough for de laines. He thought a cross of them with the South Downs or "old-fashioned" or native stock, would be successful, but should give the preference to the "old-fashioned" on one or two accounts; one is that their lambs mature quicker. He also spoke very favorably of the Silesians, as yielding a long, fine and compact fleece, and possessing a very handsome form. A year old sheep of half blood French Merinos, shorn at Hinsdale, last year, yielded 4 lbs., 13 ounces of wool, which sold for 60 cents per lb. The animal weighed only 44 lbs.

The Chairman said he thought we must use turnips as feed for sheep.

Mr. HOWARD said he understood there were epicures in this city who would not eat anything but Plymouth County mutton, because, they said, Daniel Webster was the greatest epicure in this country, and imported pure South Down sheep, whose blood has been disseminated in Plymouth county, and they must have good mutton in that county. He desired to hear from Mr. SPRAGUE on this point.

Mr. SPRAGUE said he knew very little about sheep, although he knew Mr. WEBSTER had sheep which were worth seven or eight dollars. He then went on to remark concerning sheep in Great Britain. There sheep have more muscle than here, and a better admixture of fat and lean flesh. Sheep intended for the table should not have too much fat. Mutton is growing more popular in this country. The great difficulty in raising it here is our hot sun. In England the climate is moist. Farmers in this country have paid little attention to the raising of mutton, but it is important that they should.

Mr. RUSSELL remarked that considerable had been said in regard to the quality of the meat of fine wool sheep,—that it was not so good as the coarse wool varieties; but he thought this opinion would be found erroneous on investigation. The South Down approximates to a fine wool sheep.

Mr. COPELAND, of Roxbury, thought the value of different kinds of feed for farm animals, should be studied more, and should be made statistical. It is said on good authority that 90 lbs. of turnips will make 1 lb. of beef, and 8½ lbs. of corn will make the same amount. Prof. NASH had said that the reason why English mutton was less rank than our, might be the fact that English mutton is fed on turnips. In regard to the matter of buying animals at a certain age to fatten, instead of raising them, he thought it the more profitable plan, because after the bone and muscle are formed, the cost of fattening is much lessened, and a larger profit is made on an animal after this period than before. In England it has been found (although the matter is not definitely settled) that cattle, after a certain age, fatten first inside, and then outwardly.

Mr. HOWARD said he did not think that the connection between feed on turnips and good mutton, could be established, for the best mutton in the English markets is grown on the hills and heathers, and is never fed with turnips. The difference is not the result of climate on feed, but in the germ or breed.

Mr. RUSSELL said he considered himself a good judge of mutton, and thought the matter was not treated properly. Mutton should not be eaten until it is a fortnight old, when it is exceedingly tender and palatable. This system is pursued in England.

The Chairman expressed his concurrence in this view of the matter. He also alluded to the want of some rule for raising animals. We can tell by the eye what is a good animal, but we do not know how exactly to produce another like it. He believed that hybrids from the French merino were going to be of great benefit to this country.

Mr. RUSSELL offered some remarks in relation to offering premiums for fine animals. He thought the most judicious plan would be for the agricultural societies to award premiums for several animals to be raised by one person, because the selection of a single remarkable animal for premium had no tendency to improve breeds of stock.

The Chairman inquired of Col. NEWELL whether sheep would eat wax-wood!

Mr. NEWELL replied that they would eat it and thrive on it. A gentleman of his acquaintance had purchased a flock for the very purpose of eradicating it from his farm, and was successful. He had no doubt that the quality of mutton was improved by feeding roots. Sheep fatten full as well, and the mutton is better than when fed on

corn. He considered it a question whether it was not a good plan to keep an equal number of sheep in pasture with cows. They destroy weeds and bushes which the cows would leave, and thus increase the amount of feed in a pasture, besides feeding closer than cows. Many of the farmers in Essex county are convinced that it is a good plan.

Mr. SPRAGUE said he owned a pasture, where ten or fifteen years ago, before he bought it, sheep and cows were fed, and although he had fed less stock there, and no sheep, the pasture was not so good now as then. He also spoke of the necessity of having pure blood in breeding cattle or sheep; there is no certainty with half blood. It is said that we must not breed in and in, but gentlemen in England have done it for 75 years without bad effect.

The Chairman was of opinion that we might "breed in and in" to a certain extent, but beyond that it would be very injurious, as in the case of the Suffolk hog.

Mr. FLINT read from his report the opinion of the Berkshire farmers in regard to feeding sheep in the same pasture with cows, which was decidedly averse to the practice. They run over the pasture to get the finest feed, thus destroying the coarse feed for the cows; and being a strong-scented animal, no cattle will feed where they huddle.

Mr. RUSSELL said he had observed that his sheep ate the whiteweed in his pasture, one season, on being removed to it from another locality.

Col. NEWELL said it had got to be very common in Essex county to employ sheep to eradicate "ox-eye" from the farms. Col. EMERSON, a large farmer there, said he had no doubt that they will do more than anything else to accomplish the purpose. He procured them for this very object.

The subject for next Tuesday evening is—*Grain Crops*—wheat, rye, barley and oats—their value as compared with Indian corn, and as preparatives for grass.

For the New England Farmer.

PREPARE YOUR GROUND FOR THE MOWER.

In five months, haying will be upon us. Shall we break our backs over the scythe? or shall we wake up to the times in which we live, hang these already well worn instruments on the "tree" and with our horses shave over our fields with ease and rapidity?

Whichever of these instruments we choose, let us do one thing as soon as the spring opens; clear every stick, chip and stone from our fields, and roll them while soft.

Whether we use the scythe or mower this labor will be well expended. If you have no idea of procuring the machine, your good-natured neighbor may take pity upon you and mow your grass with his mower after he shall have done a month's haying in ten days.

Don't neglect uneven fields, for these machines will mow on quite uneven surfaces.

The day is at hand when the scythe over which we have so long groaned is to be laid aside, and the faithful horses must be called from the shade to cut our grass, and the man who persists in mowing by hand will be gazed at as a relic of the past, like a plow of the last century, a fit subject for Barnum's Museum.

This to some may look extravagant, but will not five years hence. Show me the man who for economy's sake will ride his own horse from Boston to New York—that will weave his cotton cloth by hand—that will split his own lumber with an axe, while a saw-mill is running at his side, and I will admit that there is one man who may continue deaf to the chipper of the mower as it glides under the grass of the meadows.

"Ketchum's" is doubtless the best mowing machine yet made. The *Country Gentleman* and the *Scientific American* support me in this opinion.

The machine is simple in construction having had some *most valuable improvements* made upon it since last year and is durable if properly used. Messrs. Ruggles, Nourse, Mason & Co., of Boston and Worcester, are making them and from the specimens of improvement which they have given us, I think it safe to look for a good machine.

DAVID LYMAN.

Middletown, Conn., Feb. 4, 1854.

For the New England Farmer.

BARN STABLES.

MR. BROWN:—By the request of one of the publishers of the *Farmer*, I send you a short article upon *Barn Stables*. He tells me that frequent inquiries are being made at the office by those about building.

I should choose to have the *leanto* on the North side of the barn, for these reasons. If the barn is tight, the leanto will be warm enough in winter, and by being on the North side, it will be comfortably cool in summer. Cows in this vicinity are "tied up" every night the year round, with certain exceptions. It is well, therefore, in building to think of the heat of summer as well as of the cold of winter. Then if the leanto is on the North side, the droppings are farthest from the sun and air. This arrangement, too, allows the opening of the cellar—which is very desirable—to be upon the South side.

With a few exceptions, the good barns in Concord are furnished with stanchion fastenings for all the cattle beside working oxen. No one doubts but that an animal is a little more comfortable tied with a chain than by stanchions. He would enjoy it to have the length of the stable! But with animals as with men, society imposes some restraints to compensate for some advantages! No respectable cow within my knowledge complains of the stanchions, if the good, sweet fodder is only "brought on."

With working oxen, the case is a little different. They are larger, and more gentle and easily managed. Their limbs are stiffer, and they require more space to lie down in. Their necks are weary with the heavy yoke, and need the relief of turning from side to side. Therefore, working oxen should be tied with chains.

But there is another reason: Working oxen in

the short days of winter are not unyoked at noon. Now if the entrance to the stable is by a wide rolling door, and no stanchions in the way at the stall, your team may be eating at once in a comfortable place, and they will not waste the hay by trampling it into the snow or mud.

Stanchions are just the thing for turbulent young cattle. A little hay soon coaxes them to put their heads through, and if you chose, you may connect the moveable stanchions together, as I have before represented in the *Farmer*, and fasten the whole row by a single latch. This is a great saving of time and of very disagreeable labor when the cattle come in dripping wet.

Stanchions save room. The cattle, tied in them, eat from the side of the barn-floor. Then, too, any orts or leavings, are expeditiously gathered with a rake, or the floor swept with a broom. Where cattle are tied in stanchions the labor of feeding is trifling. A forkful of hay may be shaken along before them as a man walks. The stanchion should be three inches wide and one and a half inches thick, of hard wood. The width apart of the pieces when set depends a little upon the neck of the animal. The distance usually is about eight inches. It is well to have one or two extra pin-holes in the lower timber. The stanchions may be set a little farther apart at the bottom than at the top. The animal tries to escape when standing. The space between the stanchions of each animal should be filled with a strong plank. This precaution would have saved one valuable animal in town this winter, and is necessary to save hay. Now what shall be the plan of the floor? For cows it should have a very gentle inclination, and be just four feet four inches long. Where the standing floor has varied from this in the best barn in Concord, it has been altered. Mr. Joseph George, of this town, a very careful carpenter, tells me the milkmen agree that a floor four feet and four inches in length is the best. Cows tied upon it keep clean and dry. I saw a few days since some cows in the well arranged and attractive barn of Mr. John Raynolds, as dry and clean as if under an oak upon the green sward.

The standing floor for steers and oxen should vary a little in length as well as pitch from that for cows, for obvious reasons. (a.)

At the lower end of the standing floor, behind the animal, there should be a trench twelve or fourteen inches wide, and five inches deep. This trench is indispensable to the animal's cleanliness and comfort. It receives and holds all the droppings in a small space, and the labor of "cleaning out" the stable is very much less than by the old arrangement.

The scuttles should shut upon the bottom side of the trench in such a manner as to allow of a ready escape of all liquids. The scuttles should be upon substantial hinges, and turn over upon a platform, or walk, behind the cattle, of convenient width.

There is one comfort about modern barns which is worth a great deal more than it costs. I mean *light*—the introduction of a plenty of good sized movable windows. Cattle enjoy light. It certainly is desirable to have it to work by, yet how many barns now depend upon the frequency of the cracks for its abundance! or open the "great doors," of a sharp morning, to see how to feed the cattle. It is important, no doubt, to ventilate a

stable well, but still, very desirable to have control over the apertures.

A good barn is worth more to a farmer than a showy house. The house may impoverish him, but the barn will aid him directly in securing a competency or fortune; which lot, I hope, in conclusion, is to be a part, only, of the pleasant experience of your readers. W. D. B.

Concord, Mass., March 4, 1854.

REMARKS.—(a.) In order to shorten or lengthen the floor upon which the cattle stand, the planks may be left loose, and under the fore-feet of the cattle a plank inserted of any desired width, so that the floor may be lengthened or decreased to any desired length, with a few minutes' labor.

THE WEATHER AND THE CROPS.—In regard to the condition of growing wheat, there is a good deal of speculation. Accounts from Ohio vary; some papers say that the prospects are very bad, and that the farmers talk of plowing up their fields; others, that the wheat throughout Ohio bids fair to be as good as usual. An account from Michigan says that wheat is generally good, and looks promising. At Nashville, Ill., the season is said to be unusually early, and the prospects favorable; a much larger breadth of spring wheat has been sown than ever before. In Lake county, Iowa, it is said that so favorable a spring was never known.

At St. Louis, on the 29 ult., there was a severe frost, and a day or two previous a light fall of snow. The same weather had been experienced at Keokuk, Peoria, and other places, and fears were entertained in regard to fruit. The *Jackson (O.) Standard*, of 30th ult., says that frosts have destroyed entirely the fruit in that section. Of peaches, the *Middletown (Conn.) Herald* of 31st, has the following:

Are the Peaches Killed? This seems to be a question on the lips of almost every one. The cold March weather for some days past has awakened this solicitude about this excellent and delicious fruit. The general opinion with good judges so far, we believe, is that unless there should be a still harder freeze than we have had of late there will yet be a fair crop of peaches. Should so much good fortune as this befall us we may rest assured that there will also be an abundance of other fruit. Plenty of peaches always bring plenty of other fruit.

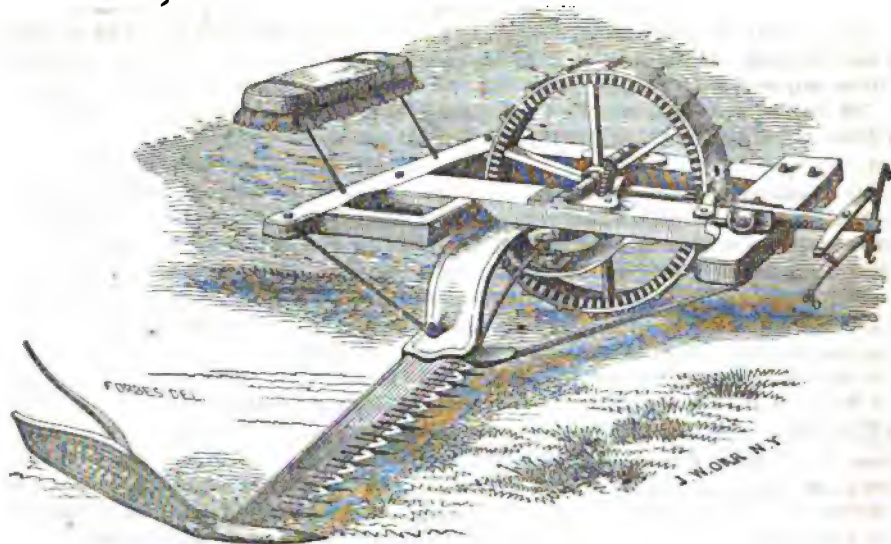
South Carolina and Georgia papers, of the last week in March, speak of heavy frosts, and fear that much injury will be done to fruit.—*Boston Journal*.

HAMPSHIRE FRANKLIN AND HAMPDEN AGRICULTURAL SOCIETY.—Officers for 1854.

PAUL LATHROP, President.

WM. O. GORHAM, Secretary.

BENJ. BARRETT, Treasurer.



KETCHUM'S MOWING MACHINE.

The accompanying cut, which we copy from Messrs. RUGGLES, NOURSE, MASON & Co.'s catalogue, represents Ketchum's Mowing Machine, which is considered a thoroughly successful machine, for the purpose of cutting grass, and the only one that has cut all kinds of grass, heavy or light, wet or dry, lodged or standing, in the best manner, without clogging or interruption.

It has taken six first premiums the past season (1853.)

We annex the following testimonials, which are the more valuable from the fact that they are extracts from business letters:—

TESTIMONIALS.

at HOWARD Co., Buffalo:—I am better pleased with the Machine, the more I use it; I doubt not it will beat the world. I am surprised to find it requires no more power; my two horses don't worry at all; the speed required is just right; in short it works to a charm. I think the Machine will probably be worth sixty dollars, or from that to one hundred and twenty dollars, to me, this season.

DAVID LYMAN.

Durham, Conn., July 5th, 1853.

MESSRS. RUGGLES, NOURSE, MASON & Co.:—Gentlemen—You ask me to state to you my opinion of Ketchum's Mowing Machine. I bought one of you last spring and used it on my farm, which is level land and free of stone, during the last summer.

Its operation was viewed by many practical farmers in my vicinity, and every one expressed the highest degree of satisfaction and approbation of its work. I requested my head farmer, Samuel I. Pickering, a man well known and of approved knowledge in farming, to give me his opinion of the instrument. His reply was, "I think it one of the best machines I ever knew—with two horses I can mow one acre of grass in forty min-

utes, the surface being smooth and three tons of hay to the acre, and with two first rate horses, twelve acres might be mowed in a day, working twelve hours for the day. In the single operation of grinding and whetting scythes, it will save a large farm, twenty dollars in one year, as wages were last year. As to spreading grass, no man in the world can spread grass, as it is left by this machine!" Such is the reply of my farmer, and from my own observation, I concur in the truth of this statement.

Yours, respectfully, JOSIAH QUINCY.
Boston, Feb. 26th, 1854.

HOWARD & Co.—My Machine (one of your improved make) has cut two hundred acres of grass, and all is right yet, except I have broken out one cutting tooth; it is not injured one dollar by using; it cut nineteen acres in thirteen hours, that would average two and a half tons to the acre, with a team not as heavy as my sorrel horses, on the 22d day of July, which was the hottest day I think we have had here this summer. It is decidedly the best Mowing Machine ever known in Ontario County. There has been a perfect rush from different parts of this county and Cayuga county, to see my Premium Machine, as I style it.

I sold it, after cutting two hundred acres, to Mr. WATERMAN, for one hundred and twenty dollars. He would have given one hundred and fifty dollars for it, had I asked it.

A. C. LOOMIS.

Geneva, July 23d, 1853.

I send you two dollars for knives for your Mower. You will be able to sell from twenty-five to thirty Machines here next season. I go round mowing; there has not been a day since I commenced mowing but I have had from five to ten persons after me to mow. I have mowed in four towns; I average from ten to sixteen acres per day; I have mowed nine acres in one afternoon.

D. W. SCHOONMAKER.

Waterloo, Seneca Co., July 7th, 1853.

TWELFTH AGRICULTURAL MEETING,

AT THE STATE HOUSE, TUESDAY EVENING, APRIL 4, 1864.

SUBJECT.—*Grain crops—wheat, rye, barley and oats—their value as compared with Indian corn, and as preparations for grass.*

The meeting was called to order by Mr. SIMON BROWN, and Hon. Mr. BROOKS, of Princeton, was invited to preside.

Mr. COPELAND, of Roxbury, at the suggestion, as he said, of the Executive Committee, spoke at some length on the treatment of fruit and forest trees at this season of the year. Trees should not be scraped, as has been done to the trees on Boston Common this spring. It is argued that scraping ornamental and fruit trees, destroys noxious insects which cluster in the bark; but insects will be found on but few varieties of trees, among which are the apple and the pear, and in these cases they should be removed with soap suds, made just strong enough to kill the vermin and not injure the tree. Neither scraping nor washing with any caustic preparation should be pursued. The insects most injurious to trees, as the borer and *trimbex colomba*, go through the bark into the wood, and of course neither scraping the tree nor washing it with caustics will reach the evil.—Scraping is an unnatural process, and besides a very disfiguring one, greatly impairing the beauty of the tree. Another objection is that by removing the outer bark, the inner bark is exposed, and evaporation ensues, which is sure to sap the life of the tree. In cases where old orchards have been reclaimed, the trees being scraped, it is owing to the cultivation, the manuring, &c., and not to the scraping that the revivification is to be assigned; the trees would have recovered without the scraping.

Mr. BUCKMINSTER, of the *Plowman*, controverted Mr. COPELAND's views in regard to washing trees. He was decidedly in favor of caustic washing on some kinds of fruit trees, especially apple. There is nothing like caustic ley for destroying all moss, parasites, &c., on trees, and he could recommend no better treatment.

Mr. BROOKS, the chairman, mentioned the case of a gentleman who was greatly troubled by the apples dropping from his trees. To remedy the evil, he adopted the expedient of stripping the trees of their bark between the 10th and 20th of June, and the most successful results followed, the apples remaining on the trees, and a new bark growing in one season.

Rev. Mr. SANGER, of Dover, inquired of Mr. COPELAND if he considered trimming trees injurious?

Mr. COPELAND said he did not. In regard to the case cited by the chairman, the explanation is this. The sap which runs up a tree comes down in the bark, and if that bark is removed from the trunk of the tree, the sap will go no further than

the edge of the bark, and flow back into the branches, increasing the number of buds, the sweetness of the fruit, and adding to the amount of its nutrition and improving its general qualities. As to parasites and lichens on trees, it could be proved that they did not injure a tree in the least.

Mr. SANGER, of Dover, recurring to the subject proper for the evening, said he had sufficient experience as chairman of the committee on grains in the Norfolk Society, to change his opinion in regard to the profitability of the grain crops. He considered them all profitable—wheat, rye, barley and oats—the least profitable to his knowledge having netted a profit of about 50 per cent. He had known instances of 25, 28 and even 30 bushels of wheat per acre in Norfolk county.

Mr. RUSSELL, of Pittsfield, was of the opinion that New England farmers could not compete with the West in raising grain. Corn is the best food for animals. Good heavy barley is worth about three times as much as corn.

Mr. FISKE, of Framingham, did not think that small grains could be raised in Massachusetts, without very high manuring, but corn can be raised almost anywhere. The great enemy to corn, the drought, he avoided by deep plowing. On a piece of poor land where corn had failed for two years, he plowed thoroughly the third year, used no manure, but put a shovel-full of mud into each hill. In plowing among his corn, he plowed two furrows, turning from the corn. This he followed with a harrow with fine teeth which he permitted to run through the hills, as it did not destroy corn enough to do any injury. When the hot season came on, and his neighbors' corn, on land better manured, was rolling up, not a leaf in this lot was curled, and the ground was moist from the surface to the depth of four feet. He obtained 40 bushels per acre, from it. He believed that we needed not to look to the West for grain. Mr. FISKE entirely disapproved of the use of cultivators, as they merely scratch the surface, and are "old foggy" implements, altogether.

Mr. BROWN, of the *Farmer*, said the cultivation of winter wheat was being introduced in New England of late years, and had proved quite successful, particularly the blue stem variety, which is said to make the finest of flour. He believed that the corn crop was the best that could be raised. It can be grown for 50 cents per bushel, and almost any one could raise it at a cost not exceeding 75 cents per bushel. To raise the comparative value of grain crops, he recommended the drill system of cultivation pursued in England, by which the profits can be largely increased, by an enhanced yield, and a saving of one-third in the amount of seed sown. The machine for drilling carries and plants the seed at the same time, dropping it in a straight line, and all at the same

depth, while if sown broadcast, some of it will be half an inch and some an inch below the surface, producing an uneven and diminished growth, and wasting much seed—equal to one third. Oats are generally used in laying down land for grass, but he thought barley was better, and still further, that both were unnecessary. Plant corn on a flat surface, instead of hilling it up, after the English fashion. English farmers are obliged to hill their corn on account of the moisture of their climate, which hilling is designed to obviate by causing the moisture to settle away from the corn. Our climate is dry and hot, and therefore this system should not be pursued, but the corn planted on a flat surface. To lay down such land to grass, sow the seed after the last hoeing, and work it in with a hand-rake. He had succeeded as well in laying down land in this way as any other.

Mr. SANGER sustained the views of Mr. FISKE of Framingham in regard to deep plowing for corn. He also requested Mr. COPELAND to explain the best method of trimming trees.

Mr. COPELAND explained the causes of increased moisture in deep plowing, which is owing to the plowed land reflecting more heat than unplowed land, and therefore contributing more for condensation and fall when the sun is declining of the moisture which always exists in the atmosphere, even in the hottest weather. The capillary attraction of the earth is also more efficient, and moisture is circulated both from above and below with greater facility. As to trimming trees; he was averse to much trimming, but would cut from the ends of the limbs rather than from inner branches, unless limbs crossed. To cut away the dead wood and crossed branches, he thought sufficient.

Mr. SPRAGUE, of Duxbury, expressed the conviction that each farmer must raise crops according to the circumstances in which he is placed, and decide for himself which is more profitable. He also contended that farming was comparatively a very unprofitable calling, at least in Plymouth county.

Mr. FISKE, of Framingham, denied the unprofitableness of farming, and cited his town as proof to the contrary.

The CHAIRMAN also argued the profits of farming, and went into an interesting comparative statement to show that New England can compete with the West in raising corn. He advised farmers to consume all their produce on their farms, and secure their money returns on beef, butter, milk, &c,—because every bushel of grain going from a farm takes with it the means of raising another.

Mr. RUSSEL, of Pittsfield, controverted the idea of competing with the West in the article of corn, alleging that they have much the advantage in the matter of labor.

After a few remarks appropriate to the closing meeting of the series, by Mr. BROWN, the meeting adjourned *sine die*.

STATE FARM AT WESTBOROUGH.

In June or July last we gave a brief account of the foundation of this Institution of charity, of the location and capabilities of the farm, and that it was then contemplated by the Board of Trustees to place the farm under the care of the State Board of Agriculture. This transfer was made on the 24th of March, 1854. In the instrument of transfer it is declared that "the purpose of this arrangement is, to relieve the Trustees of the care and management of the agricultural portion of the establishment at Westborough, to provide an experimental farm to the Board of Agriculture, and to furnish greater facilities for the employment and instruction of the inmates of the Reform School in Agriculture and Horticulture, in accordance with what are believed to have been the views and wishes of General THEODORE LYMAN, the founder of the Institution, while the products of the farm shall continue to be applied for the use of the school substantially as under the former management."

The prime object of the founder was the reformation and well-being of the boys, and that object will still animate both Boards, under the new arrangement. But the extent of the farm, and its adaptation to the various crops, with the great advantage of a market without stepping off the land, offer facilities for a more extended cultivation, and more exact experiments with stock, manures, trees, plants, draining, irrigation, subsoiling and reclaiming, than the Trustees could find opportunity to attend to, after discharging their duties in relation to the school itself.

With the Institution, that is, the school for the reformation of the boys, the Board of Agriculture has nothing to do, more than to find employment for as many boys as the Superintendent can spare, and to place them under such influences and instruction as will increase their skill in agriculture and horticulture, while it affords them healthful occupation in the open air. It is supposed that the amount of labor thus supplied may amount, in the course of the present year, to the sum of four or five thousand dollars.

Some portions of the farm are exceedingly rocky, and will require an outlay of from fifty to two hundred dollars an acre, to clear them out. This is the case with some of the land directly in front of the principal buildings, which must be thoroughly reclaimed before any well defined plan of the estate can be completed. The division fences remain much as they were when the tract was purchased, and little has yet been done in the way of draining, or bringing the fields into a high state of cultivation. With regard to landscape gardening and rural architecture, nothing has been attempted; and so far are we from any disposition to find fault with this, that we think the Trustees have shown a wise forethought in declining to take up a work

so widely different from that with which they were charged. Their duties have been to perfect the plan for the reformation of juvenile offenders, and not to make an exhibition of their skill in laying out parks and pleasure grounds. By the exercise of good sense and a refined taste, the estate may, however, become one of the most beautiful in the Commonwealth; and under the judicious management of the Board of Agriculture, we hope to see it, from year to year, gradually assuming the beauties and principles of the art of landscape gardening, in order to please the eye, as well as to produce beeves and milk and corn, to sustain the corporeal powers. Though the fields be well cultivated and nodding with ripening crops of corn and grain, and the earth bursting with the rich treasures of her root harvest, we wish to see spots where the smooth lawn shall extend to the lake shore, or the lover of seclusion may say—

"Here Nature in her unaffected dress,
Plaited with valleys and imboast with hills,
Enchast with silver streams, and fringed with woods,
Sits lovely."

With the strong working force of men and teams which such a farm requires, there will be frequently a day when both may be applied to such work as is not absolutely necessary to the production of the greatest crops, but may be applied to grading, embanking, road-making, &c., which will effect wonderful changes on the farm in the course of a few years, and without the necessity of a specific appropriation for such purposes. We do not, therefore, think it "travelling out of the record," as the lawyers say, to suggest to the Board the importance of immediately obtaining such a survey of the whole, and such a plan or laying out of the grounds as the combined wisdom of the two Boards, together with such artistic aid as they may call in, will suggest—so that every valley filled, or hillock levelled, every pathway to cultivated fields, every rock removed, or tree or shrub planted, shall be so much done towards completing the plan adopted. From a personal knowledge of most of the gentlemen composing the Board, we have no doubt they possess the skill to manage the farm pleasantly and profitably, and at the same time settle many important questions in agricultural operations which are now involved in mystery, and in which our readers, everywhere, are interested.

THE WORLD A TRIBUNAL.—A man passes for what he is worth. Very idle is all curiosity concerning other people's estimate of us, and all fear of remaining unknown is not less so. If a man knows that he can do anything, that he can do it better than any one else, he has a pledge of the acknowledgment of that fact by all persons. The world is full of judgment days; and into every assembly that a man enters, in every action he attempts, he is gauged and stamped. In every troop of boys that whoop and run in each yard and square, a new comer is as well and accurately

weighed in the course of a few days, and stamped with his right number, as if he had undergone a formal trial of his strength, speed, and temper. A stranger comes from a distant school, with better dress, with trinkets in his pockets, with airs and pretensions. An older boy says to himself, "It's no use; we shall find him out to-morrow."—*Emerson.*

For the New England Farmer.

COMPOSTING LIME AND ASHES WITH MUCK.

IMPROVED CULTIVATION, &c.

F. HOLBROOK, Esq.:—Dear Sir,—Having been long familiar with your articles on agricultural topics, I cannot but feel, in addressing you, in some measure, as if communicating with an old acquaintance.

You will perhaps think me unreasonable to trouble you with interrogatories, after reading your articles detailing your practice and experience so particularly.

But having learned thus much, makes me anxious to learn something more; and if you can spare a few moments to devote to my inquiries, you will much oblige me.

Having commenced farming in this place, in a small way, within the last year—and having an acre or two of muck swamp, I wish to make use of some of it with ashes or lime the coming spring. I have intended to use ashes; but am not sure I can obtain them in sufficient quantity; and should like to know whether your experience with lime continues to be as successful as you represent it to have been in former articles.

Mr. Mapes and Mr. Dana both recommend ashes to compost with muck, but seem to be rather shy of lime unless slacked with brine. Have you had any experience with Mr. Mapes' "Salt and lime mixture?" Which would you consider preferable on the whole—ashes at 14 cts. per bushel, or lime at the rate I can get it at from Boston?

Would you not prefer shell lime to stone lime? I see the shell lime advertised at Charlestown at 30 cts. per bbl.—about 3 bushels, I suppose. Would you use lime in preference to potash—in case ashes cannot be obtained?

I have written to Dr. Dana, but he said he had nothing to add to the directions in his "manual"—excepting that he had sometimes recommended the muck to be spread on the land, and then the ashes sowed on and both harrowed in together. How should you think that would do? It seems to me as if it must be better to mix the two and let them lie in compost for a while.

How long would you think it necessary to let the compost lie—(when applying either ashes or lime) before using? My muck was dug rather late in the fall.

My land is a rather thin soil; some parts rather stony (small cobbles); other parts a gravelly loam; others inclining to sandy loam; is situated rather low, and pretty level;—and the original growth of timber probably, mostly pine,—with oak, chestnut, &c.

It has lain in pasture some years, and is pretty well run out. I think I shall try your method of turning over the sod in August or September, and seeding with grass.

Would you sow clover at that time, or sow

herds grass, &c., at that time and clover in the spring?

What variety of corn do you plant, or would you recommend,—8 or 12 rowed? Could you send me a few quarts, in case I should order it, of a good and productive kind? I planted the *Small Canada* last season, but it seems a pretty *small business*.

But lest I should weary your patience, I will close. Should you think of any other suggestions relative to muck, or any improved methods of cultivation, I shall be very thankful to receive them.

Very respectfully yours,

March 1, 1854.

DEAR SIR:—I embrace my earliest leisure to reply to the inquiries proposed in your letter of the 1st inst. I often receive letters of inquiry about farming matters, which I answer cheerfully, notwithstanding the innovations upon my time involved in such answers, feeling willing to contribute my mite towards agricultural improvement. I have judged it proper to answer your letter through the medium of the *New England Farmer*, trusting that inasmuch as your inquiries are of similar import to those frequently proposed by other persons, and therefore possess general interest, and your name and residence are withheld from the public eye, you will not think the sanctity of private correspondence very seriously invaded.

You will realize good results from composting muck with lime alone; but if the lime is slaked with brine, the compost will be enough better to warrant the expense. Dissolve a bushel of salt in water enough to slake five or six bushels of fresh lime to a fine dry powder—slaking the lime no faster than wanted for immediate use, applying it to the muck while hot, and covering it at once with more muck. A cask, or three bushels of fresh lime will do very well for five loads of muck, of about one-half-cord each; but a bushel of lime to a load of muck would be better. It is an important point in composting, to mix the materials nicely; and hence the layers of muck and lime should be thin and frequent—say the muck four to six inches and the lime in the right proportion—so that the lime may act effectually in neutralizing acidity and promoting decomposition. After lying three or four weeks or longer, the heap should be thoroughly overhauled.

Good unleached ashes, at 14 cents per bushel, may in many localities be profitably composted with muck; but if you buy shell-lime at the price you named, and the freight is not too high, you may probably find it advisable to use lime instead of ashes, considering the relative cost of the two. If ashes are employed, about two bushels will be needed to each half-cord of muck. I cannot inform you of the relative advantage of using stone and shell-lime, as the former being plenty with me at a moderate price, I have not used the latter.

Whatever Doct. Dana says to you regarding composts, is entitled to great consideration. My impression is, however, that he would not advise you generally to broadcast the muck and ashes and mix them thus, in preference to mixing them in a heap to stand awhile before being applied to the land. By mixing them in layers to remain in heap a few weeks or months, the acidity of the

muck will be fully neutralized by the alkali of the ashes, and the desirable decomposition carried forward.

You remark that your land is of a thin soil, and pretty much *run out*. Then you had better at once adopt measures to deepen the soil. In *skinning* your land, probably the plowing was quite shallow, and nothing below the depth of four to six inches was ever stirred. You had better begin plowing seven or eight inches deep certain, manuring well whatever you plow. Don't be afraid of a little yellow dirt. Deepen your plowing a little at the commencement of each new rotation of crops, allowing the original under soil to remain on the surface through that rotation, to be modified and improved by atmospheric action and the compost manure. To secure this result, let the first plowing for a given rotation be as deep as you wish to stir the land, and subsequent plowings, such as turning under the stubble of hoed crops preparatory to seeding to grass, quite shallow, leaving the turf underneath through the rotation. These remarks are meant to be general; you may of course find it convenient in practice to vary from them more or less; but, in general terms, they indicate a cheap and quick mode of improving a poor thin soil.

Such portion of the land as you would prefer to seed immediately to grass, without intervening hoed and grain crops, you had better plow in August or September, as you propose doing; spread your compost on the inverted furrows, harrow and mix it well with the subsoil turned up, and sow herds-grass and red-top seeds; on a late snow in spring, sow red and white clover seeds; and a few weeks later, on a still, misty day, sow a mixture of five to ten bushels of unleached ashes and one bushel of plaster to the acre, which will stimulate the young grass to push out roots vigorously and cover the surface of the land, and choke down sorrel, which is very apt to grow on such land as yours. Mow for three or four years, or as long as the crop of grass is satisfactory; then plow an inch or two deeper than before, and manure and seed as before. After two or three courses in this way, the land will be well filled with vegetable substance, and have that depth, body and consistence of soil which will protect the crops from ordinary drought and cause a good yield.

For pretty level lands of a medium texture of soil, and free from stumps, fast rocks and other considerable obstructions, you will find the Double or Sod and Sub-soil Plow an excellent instrument,—particularly in cobbly fields, as it hugs the ground famously and maintains great uniformity in depth of plowing.

In localities favorable to the growing and ripening of corn, it is generally best to plant a variety of good size of ear. I plant a very large sort of eight-rowed yellow corn, which ripens well on my warm flats, but would be too late for you. I have generally preferred large eight-rowed to large twelve-rowed corn, because the former has less cob to be cured than the latter, particularly at the but, and when several hundred bushels are to be cribbed up rapidly at husking-time, is not quite so liable to mould in bad weather. The little Canada corn, although of the very first quality for feeding purposes, does not yield largely at the best; and to obtain a large crop for this kind of corn, the hills must be planted very near together,

which increases the expense of cultivation; and then it requires the patience of Job to husk the crop. There is a variety of eight and ten rowed white corn, grown pretty generally in Plymouth County, Mass., which from all accounts I should think might do well on your thin soil. It is represented as yielding better on poor land than most other sorts of corn. It has quite a large ear, and small stalk in proportion to the ear. You can obtain it at the seed stores in Boston.

Very truly your friend,
F. HOLBROOK.

Brattleboro', Vt., March 14, 1854.

For the New England Farmer.

MONTHLY FARMER FOR MARCH.

A weekly agricultural journal in the newspaper style has advantages that do not belong to a monthly publication in book form. Not exclusively agricultural, the weekly is at once a map of the farm and a "map of busy life,"—a medley of big crops and big accidents; of scientific essays and practical suggestions; reports of hen conventions and speeches in Congress; prices of stock in Brighton and of stocks in State Street; advertisements of patent medicines and of patent manures. But the monthly, while it may lack something of this variety and freshness, has strong claims on the preference of reading farmers. It is compact and convenient for preservation and reference; without which an agricultural journal, or indeed any publication, is of little worth to me. A single perusal of an elaborate article, on any subject, embodying the results of much reading or of great experience, is of little value to most minds after the lapse of a few months. The facts become displaced, confused, forgotten; and in a practical use of them, the careless reader often finds himself in the dilemma of the good old lady, who, on giving directions for testing the genuineness of indigo, said, if put in water it would either sink or swim if good, but she had forgotten which! A working book for both farmers and mechanics should be of portable form, so that it may be consulted in field and shop. Such is the monthly *Farmer*. Bound up, it is an ornament to the library; and if any farmer can read the successive numbers without receiving a dollar's worth of profit, and a dollar's worth of pleasure, in the course of the year, he must be very near perfection, or something worse. But to the number before us.

AGRICULTURAL MEETINGS.

This number of the *Farmer* furnishes reports of three Legislative Agricultural Meetings, at which Plowing, Manures, Roots, and How to make Home Attractive, were severally discussed. Valuable and instructive as these debates have proved to be to the farmers not only of Massachusetts but of the whole country, a more hearty co-operation by those in General Court assembled, would give a greater freshness and originality to the proceedings of the society. Why don't they do it? Are farmers frightened away by the idea that remarks made here on saving manures, planting potatoes, feeding calves, &c. &c., will class them with public speakers, and orators! An article entitled "Legislative Agricultural Society" shows what these debates should be, while another, "Legislative Farmers," tells what they are. We find also

a report of the discussion by the "Concord Farmer's Club" of Indian Corn; and "Agriculture South" gives some account of the agricultural association of the Planting or slave-holding States; while we are informed that among the principal points at which the "Maine State Board of Agriculture" aims is to introduce the study of agricultural science into every school of the State. When thirty-nine fortieths of the children of the farmers of the United States are able to attend no higher school than that of the district in which they live, how can they be reached by means of other and higher institutions?

"BIRDS OF NEW ENGLAND."

No. 9 of Mr. Fowler's articles give the life and character of the Blue-bird, the Bob-link, and the Cat-bird.

BUTTER.

"Fine Samples of Butter" made from milk at the rate of four and one-quarter quarts to a pound. An inquiry, "Why don't the Butter Come?" well answered by "Butter Making."

CORN.

Besides the discussion of this crop by the "Concord Farmers Club," we have an article on "Corn, Cobs and Grinding" contending that, at the rate millers take toll, it is not profitable to have the cobs ground.

CROPS.

Comments on the "Weight and Measure of Corn," for premiums; account of raising "Wheat—forty-five bushels per acre," in Marlboro, N. H.; of a "Fine crop of Corn," in Epping, and of a great crop of sugar in New York, from a single tree.

"FEED FOR STOCK."

An account of the process adopted by the writer, for cutting and steaming the winter food for five cows, on which they "give as much milk as they would on good June feed," and a saving of "about one-fourth of my usual winter's feed," is made.

FRUIT.

Direction for the "Culture of Cranberry vines," and plain observations on "Cutting Scions," preserving and transporting them.

GARDEN.

The bright mornings and warm days that dawn on us here in March, are just enough to remind us that once more has the time of the singing of birds returned, and that spring-work will soon call us from the garden to the field. Let us read then what is said of "Garden Work," and how to raise crops of "Peas and Turnips" on the same land.

IMPLEMENTS.

Recommendation of "The Double Plow and Horse Hoe," by one who puts his own hand to the plow. Cut and description of "Batchelder's Corn Planter."

INSECTS.

"The Curculio"—a complaint that all remedies fail. "Bee Culture, No. 2." "Rose Bugs" kept off by ashes sprinkled on the leaves, and about the roots of rose bushes.

MANURES.

"Fertilizers"—suggestions for trials of carbonate of potash, aqua ammonia, sulphate of potash, and water in which vegetables are boiled, but no promise by the writer to make the experiments

himself! "Extracts and Replies" give the price, &c. of Poudrette, and directions for using guano. "Shade as a Fertilizer"—strictures on a previous article with the same caption. Both writers seem to admit as a fact, that successive crops of wood enrich the soil. On the principle of the advantages of rotation, wood may prepare the soil for the growth of ordinary cultivated crops, but from observation, I conclude that each successive crop of wood grows slower and smaller than its successor—thus indicating the inability of the soil to produce wood crops, as well as corn crops, indefinitely. "Mr. King's Address at Northampton" opposes the use of manure as a top-dressing.

POULTRY.

Although a little provoked at our own hens for adopting a line of policy by which we have eggs plenty when they are cheap, but none at all when they would sell at good advantage, we cannot help admiring the very pretty "Poultry House" figured and described by the editor in this number. Biddies that live in this top-knot style, certainly ought to emulate the exploits of that old speckled hen, whose sad fate is commemorated by the few successors of the ancient Bards, who yet sing the songs of yore.

ROOTS.

The writer of the article "Carrots," &c., gets into a sad snarl by trying to learn the value of this root from tables of analysis, and published statements and opinions. Is it not time that agricultural writers and speakers learn caution in the use of stray facts and tables of figures! "Cultivation of Roots" tells how to raise carrots so as to make money by the operation,—after hitting me a slap for going back to the old well-curb, by which means our well is famed as the best water in the neighborhood.

SCIENTIFIC.

"The Symmetry of the Solar System," an article contending that all truth in astronomy is not yet developed, and that the science is not always to remain where it was left two hundred years ago. It also contains some general remarks on Symmetry, that I commend to the consideration of those who adopt the principle latterly taught in high quarters, that "confusion," in laying out grounds, planting trees, and even in the arrangement of buildings, is the highest manifestation of skill and taste that man is capable of. "Tripoli or Burgmeal," is the caption of a letter from Prof. O. T. JACKSON, showing that specimens of a deposit found in a pond in Maine, are composed of very minute shells. I regret that an examination which suggested the thought that

"The very dust we tread upon was once alive,"

should have been the occasion for introducing a pun couched in language that can be tolerated in few respectable families. The "Chemistry of Plants."

VARIETY.

From "Mr. Coming's Address" we have two pictures—Foolish Farming, and Profitable Farming. "Mountains of Vermont." A taste for mountain scenery seems to be rapidly increasing among the pleasure-seeking classes of our cities. And well it may. Whoever has stood upon a high mountain, has one bright spot in his memory. My own pilgrimage to the summit of old

Mansfield, years ago, was so pleasant, that I hope many people will accept the invitation of friend Milan, to try the hospitality of Stow people, and the splendid view from the top of this mountain. Many other articles must be passed over with a brief, or no notice at all, such as, "Chrysal Palace Rewards;" "Quackery in Farming;" "Farm for Experiments;" "Rearing Calves;" on the trial of "Reaping Machines," "Underdraining," &c.

A READER.

Winchester, March, 1854.

For the New England Farmer.

POTATO ROT.

MR. EDITOR:—The potato as an article of food has become one of the most necessary and important productions from the soil that is cultivated by the farmer. And as all classes feel the loss of the potato, so much so that a table of meats and vegetables cannot be spread without it, the article must always be prized, as being one of the necessities of life. The fearful malady in shape of the "rot" that has spread over the whole country and other countries in the last ten years, has caused much alarm among all cultivators as to its real cause, whether a remedy for it can be found out, or whether the cultivation of the potato will not finally have to be abandoned altogether. As to the real cause of the "disease," it is presumed that we all know as much about it now, as we shall in the next ten or twenty years to come, and that, in reality, is just no knowledge at all.—And all the certain and sure remedies which have been put forth by different individuals, we consider not to be worth one red cent as a cure or preventive, as a general thing. For instance, one man puts salt and lime into his potato hills and they do not rot; another cultivator cuts off the tops of the potatoes in the latter part of the season, as soon as the rust strikes them, and that saves his crop. Another farmer plants his crop on high and dry ground with little or no manure, and that saves his crop, and so on to the end of the chapter. And yet it is enough to know for us all, that the potato has and continues to rot in all seasons and soils, climates, conditions of culture, &c.

Whether this disease will continue for another ten years of course we know not, but are inclined to think, however, that in time it will run out by cultivation, and the potatoes become sound again. As to the general mode of potato culture, there are probably almost as many plans and theories, as there are farmers, and perhaps every cultivator will have his own way of doing the business. With many farmers there has been a great change in the manner of cultivating the crop in the last few years, while many others follow the same system that they did twenty-five or thirty years ago; "no change" is written on their system, which they prove by their works.

It would be a matter of curious history for the future to know how many certain and "sure remedies for the potato rot" have been put forth during the last ten years, by different individuals in this and other countries. So far as our knowledge goes, we know not of the first "line" of reliable information whereby any plan has yet been brought out as a certain preventive against the disease.

We have been led to these remarks by seeing an advertisement in the last number of the *Country Gentleman*, headed "*Potato Rot—a remedy by wise importation and reproduction. Valuable potatoes for sale, &c.*" These potatoes are for sale by Chauncy E. Goodrich, of Utica, N. Y., and are what he calls "The Rough Purple Chili," imported at great expense from South America in 1851, and they are now offered for sale at the very moderate price of eight dollars per bushel. Mr. Goodrich says that in 1853, his seed potatoes were scattered over twelve Northern States and that reports have been heard from nine States, and but two cases of rot have been reported. Now taking Mr. Goodrich at his own word and his seed potatoes and importations, and we say they are not a "wise remedy against potato rot." Because if they were, they would not rot at all under any circumstances of cultivation or soil, climate, &c. That new and valuable varieties may be brought out by Mr. Goodrich's plan by importing and producing seedlings from the ball we do not doubt. But the system is not new at all, as it has been practiced by a great many other cultivators since the "rot" made its appearance. But that this system of importing and reproducing from the ball, will give that hardness of constitution which Mr. Goodrich tells for, we do not so readily believe. And possibly his seed potatoes may be worth the price asked for them, as every cultivator will be his own judge on that point. What we contend against is, of offering for sale seed potatoes of that character as a sure remedy against "rot" when it is no such thing, as Mr. Goodrich well knows. We repeat what we have often said before, that as yet no certain or sure remedy against the "potato disease" has been found out. But if ever such a remedy can be found out, it will be worth while to have it made known, and let the "finder" be well rewarded for his labor.

Yours truly, L. DURAND.

Derby, Ct., Feb. 25th, 1854.

USE OF GUANO.

There seems to be still considerable misapprehension as to the proper way of applying guano as a fertilizer, and a word or two at this time, when so many are making preparations to use it, may not be inappropriate. The question is often asked whether guano will prove a permanent fertilizer—that is, as permanent as the common manures of the farm? Our own experience on this point has not been extended through a sufficient space of time, to justify the expression of a decided opinion. We have supposed, however, that the coarser and less concentrated manures of the farm would have a more permanent action than guano. For instance: we have supposed that an acre of sward land, plowed, manured with twenty loads of the common barn-yard or cellar manure, and planted with corn two years, receiving the same quantity of manure the second year that it did the first, and the third year sowed with oats, or barley and grass seed, would continue to produce fair crops of grass, much larger than an acre of the same land would, treated with 300 pounds of guano to the acre, for

the same time. Coarse manures, covered up in the soil, undergo a process of fermentation, and gradually give off their properties to the roots in which they come in contact; while guano, already highly concentrated, and volatile, must, we think, give off its ammonia, and other properties, much sooner than the coarser manures.

Lacking experience ourselves, as already mentioned, we have sought to learn that of others, and in that experience find our opinions abundantly sustained.

Com. THOS. AP. C. JONES, a gentleman of extensive travel, and the hero of the Monterey affair on the Pacific during the war with Mexico, cultivates a farm in Fairfax Co., Va., about 12 miles from the city of Washington. Most of the land of that county had become so impoverished by repeated tobacco crops, that it was proverbial, that the more of it a man owned the poorer he was. We have passed his farm many times and seen his fine wheat, corn and clover fields, in wide contrast with those of many of his neighbors, and once called at his mansion to have a little social chat with him on subjects agricultural, but he was not at home. We know enough, however, of his modes of cultivation, and his character for uprightness and sound discrimination, to place great confidence in whatever he says in relation to these subjects.

Com. JONES presented an essay to the MARYLAND STATE AGRICULTURAL SOCIETY, last fall, upon which the Judges awarded him the prize. This essay is mostly a detail of his own practice and experiences, and a paper which we should be glad to lay before our readers without abbreviation; but it is too long, occupying eight or ten closely printed pages of the *American Farmer*.

But it is with reference to what he says of guano that we have introduced the *Comodore* and his excellent essay. He says, "guano should not be applied the second time to the same land, unless in combination with other fine manures; nor should it ever be applied in its crude state, to land that is in good heart, i. e., land that will bring thirty bushels of Indian corn, or 15 bushels of wheat per acre without it; not but that guano in some such land might increase the product of both wheat and corn, enough to pay for itself, but if it should, the soil will be robbed of its fertility, and will be left in a far worse condition than when the guano was first applied; at least, such have been my own results in its use, and such is the universal character of guano in Peru, as I then learned upon personal inquiry, from the mouth of all persons (with whom I conversed) engaged in gardening and agricultural pursuits around the city of Lima, the capitol of Peru, from whence we obtain the best guano. I have frequently been in Peru, first in 1835, again in 1842—3, and more recently in 1848, and on each and every occasion, I took the greatest pains to obtain all possible information as to

the value of guano as a manure, and the mode of applying it to field and garden culture, as well as to its effects upon the land, and with one accord and without a solitary exception, I was told that land stimulated by the use of guano, soon became utterly worthless, unless the stimulus was kept up by repeated applications. This was the reason assigned for so little use made of guano where the cost of the article is merely nominal, not exceeding more than half what we willingly pay for leached ashes in the District of Columbia.

Another question constantly asked, is,—“With what shall we mix guano before using it?” If sown broadcast, we see no other good reason for mixing it than the greater convenience of sowing,—and in that case we should mix with some of the soil upon which we were sowing. If to be applied to the hill, there is danger of destroying the seed if it comes in contact with the unadulterated guano. There seems to be a great desire to mix it with something,—but until those using it know what the effect of such mixing is, they had better use it alone, when broadcast, or mixed with loam when used in the hill. Dropping and mingling in the hill amounts to the same thing, but it is a more tedious work.

On this point, too, we are able to turn to testimony of the highest character. LEVI BARTLETT, Esq., the able associate editor of the *Journal of Agriculture*, in an article in the March number on “Guano, Ammonia, and some other things,” says:—

“It is a very common thing for farmers to mix gypsum with their guano, for the alleged purpose of fixing the ammonia. The theory of this is, that the sulphuric acid of the gypsum, will combine with the ammonia of the guano, forming the non-volatile sulphate of ammonia, and the carbonic acid of the ammonia will unite with the lime, resulting in carbonate of lime. Now, this is true, if the gypsum is in solution; but it requires some 500 pounds of water to dissolve one pound of gypsum. But in a state of moist powder, gypsum, brought in contact with guano, liberates the ammonia, and it flies off and escapes into the air.

Some two years ago, a writer in the *Richmond Whig*, with the signature of T. S. P., (supposed to be Thomas S. Pleasants, of Petersburg, Va.,) states that he had recently taken some pains to ‘investigate the matter, and thinks he has obtained a number of important facts.’ His investigations related chiefly to mixing plaster with guano. He says, ‘the result was, that in nearly every case, the action of guano was impaired by the addition of plaster, very much in proportion to the quantity of gypsum employed. When mixed together in anything like equal proportions, the effect of the guano was entirely destroyed. In one or two instances, where plaster had been liberally used with stable manure, the effect was equally injurious.’”

This is testimony not easily invalidated, and we have no doubt is correct.

For the New England Farmer.

EFFECTS OF INNOCULATION.

MR. EDITOR:—In the reports of the Legislative Agricultural meetings of last winter, I remember reading a statement made by one of the speakers, respecting the effects of inoculation on the longevity of fruit trees, in which he contended that inoculation did not tend to shorten the life of the tree; without attempting to discuss this ever interesting and very important question in the economy of fruit-culture, I would present a few facts relative to a very aged peach tree, which may go towards forming that great cluster of facts which make the kernel of a general truth.

Every farmer in Massachusetts looks upon his peach tree as comparatively a short-lived tree, of rapid growth, quick maturity and speedy old age. Yet in sunny France, as Mr. J. J. THOMAS informs us, trees which are here annually and freely pruned, have lived to the age of one hundred years; and in northern Ohio and western New York, the peach tree has been known to bear fruit for forty or fifty years. Yet even in these most favored regions of our land, a peach tree which verges towards half a century is an anomaly which almost calls for a pilgrimage. We should not expect, therefore, to find trees of so venerable an age growing among the bleak hills of Massachusetts, much less should we look for such on an inhospitable seacoast, exposed, too, to the blighting influences of our chilly east winds. Yet we can record one instance, which perhaps may elicit others.

Hearing that in a field in the outskirts of the town of Marblehead, there lately stood a very aged peach tree, I visited the locality in the summer of 1852, and found the tree yet standing, in the midst of a mowing field situated in a low plain, about half a mile from the sea on the south. On the south the sea was in view, and on the southeast the plain was terminated by a range of hills close bordering the ocean. A hill rose gently towards the north-east, sufficiently to afford some protection. Excepting a hill-top, a more exposed situation could not easily be found. The tree was standing in what was probably a gravelly soil, among a quantity of loose stones, then newly covered with turf. From within a foot of the centre of the trunk, a low ledge rose abruptly at an angle of about 60°, extending some twenty-four feet towards the N. East, and rising five feet from the surface. The tree has two distinct trunks, which apparently were once united below the surface, but were then so decayed as to have no apparent contact. The main trunk leaned at quite an angle toward the N. East. The tree was about twelve feet in height, with a diameter of about one foot at the surface; the head was small. Though at the time I visited it, it was entirely dead, yet it had some life the year previous, and within four years had yielded a crop of a bushel.

Upon making inquiry of several highly respectable citizens, I was informed by one, that his remembrance of the tree extended back thirty-five years; that this was the only tree which had ever stood on the spot; that during this period the field had been plowed twice. By another, that he was certain the tree stood there forty-six or seven years ago, and was then of size. By a third, that he remembered it when a young boy FIFTY-SEVEN years ago, and that then it was a bearing tree; that at that time and ever since it has been the mark for

every school-boy to pelt and rob. This was as far as I could trace back its history. Respecting its origin, the opinion uniformly given was, that it was a chance seedling; this is corroborated by the quality of the fruit, which one gentleman declared was "terrible" for eating, though good for preserving. I obtained a transverse section of the trunk, but could make out about forty rings of annual growth, though the later ones were so narrow and so much decayed, as to render them very liable to be overlooked. The conclusion to which I came, was, that this was a fine illustration of the strong preservative power of the natural stock, when unenfeebled by the cunning contrivances of man; imparting, in this instance, a tenacity of life that had enabled it to contend successfully for over half a century, against the neglect of men, the rudeness of boys, and the opposition of the elements.

JAMES J. H. GREGORY.

Hingham, Mass., Feb. 7, 1854.

NEW BOOKS.

AMERICAN FRUIT GROWER'S GUIDE. A new work on Fruit, by F. R. ELLIOT, Esq. New York: Saxton, 162 Fulton Street, 1854.

From the cursory examination we have been able to give this work, we should pronounce it a good one. Mr. ELLIOT has had experience, and knows the importance of being cautious in the recommendation of fruits. No man, it seems to us, is fully qualified to compile such a book, who has not gone through the trial of rearing trees, as carefully as he has his own children, and found them at last, bitter everywhere, both in the "mouth" and in the "belly." Among the little things of life there is scarcely a keener disappointment than this.

The illustrations of this work are far more striking and satisfactory for showing the inside as well as the outline. The fruits are represented as *cut open*, showing the core and seeds, and sometimes the appearance of the pulp. The book is printed in Saxton's good style, and has a good index. One of our most accomplished fruit growers thinks the author has not done himself full credit in the delineations—that many of them are not as large as the fruits represented will justify. When a second edition is printed, we suggest that instead of the words, "index of fruits," being placed on the top of each page over the index as a running title, that the names of the fruit be inserted, as "Apples—peaches—plums," &c. Upon the whole, the "American Fruit Grower's Guide," though not without its faults, is the best work we have on the subject.

FIRST LESSONS IN CHEMISTRY AND GEOLOGY, as applied to Agriculture. Boston: Dayton & Wentworth, 1854.

This is a capital little work, designed for schools, and will introduce these interesting subjects to the pupil in many different ways, make him familiar with the terms used, and increase his love for rural occupations by enlightening his mind in relation to them. We shall be glad to see such a work introduced into all our schools, and

that the girls will be required to study it as well as the boys. Dayton & Wentworth, Boston, 1854.

THE CULTURE OF THE GRAPE AND WINE-MAKING: BY ROBERT BUCHANAN. With an appendix containing directions for the CULTIVATION OF THE STRAWBERRY, BY N. LONGWORTH. Fifth Edition. Cincinnati: Moore, Anderson & Co., Publishers.

This work gives the mode of cultivating the various kinds of grapes in vineyards for wine-making, and the manner of making the wine, and we have no doubt is a safe guide to those engaged in the business. Indeed, the book appears to be filled with what the cultivators of the vine ought to know. We might read the book with a better relish, perhaps, had we tested the sparkling Catawba itself! The article on the Culture of the Strawberry is full of interest to everybody who has once tasted strawberry and cream. Better judges than ourselves on the subject of the grape, say the work is an excellent one.

For the New England Farmer.

TO DESTROY THE CURCULIO.

MR. BROWN:—I perceive your Burrillville, R. I., correspondent has been much annoyed by that most villanous insect, the curculio. To prevent the ravages of this "bug" the "specifics" recommended have been many, and with the exception of two, they have proved as effectual with me as with the gentleman referred to. Now though I do not expect to advance an original idea, I will proceed to give the details of a plan which has proved more effectual than all others, in diminishing the number of those troublesome scamps, at least so far as my own experience is a fair test.

Take ten yards (and if your trees are very large, more will be required, and add another breadth) of cheap sheeting, cut the same in three equal parts and have them sewed together so as to form a mammoth sheet, cut half way through the middle, and have it hemmed; with this you can completely cover the ground under the trees, and with the aid of two or three children to assist in holding the corners and spreading the same, a vast number of curculios may be destroyed in one hour's time. The way to proceed is this: after your sheet is spread give the trees a sudden jar, if the trunks are not more than three inches in diameter, nothing more than the hand will be required; if trees are large, have at hand a large mallet with the corners rounded off, and wound with cloth, under which there should be a little stuffing to prevent injury to the bark; strike with that square against the stem of the trees, then at once with a pair of pincers made of the thumb and fore finger, dispatch the curculios, or they will soon be off. Be sure and pinch hard enough to break their shells. If you have help sufficient to hold the sheet up to the lower branches when the tree is shaken, more curculios will be secured, for I have noticed that in their descent from high trees they sometimes fly before striking the cloth. If the insects are numerous, visit your trees once a day, say just before sunset, and you will thin them out fast.

If you have cherry trees in bearing, visit those with your sheet and mallet and pincers. Every

dozen insects treated in this way, makes the number less to propagate the species; but most other plans only drive them to other places, if indeed they have any effect at all.

The other method is, pick the fallen fruit, and either burn or empty it in the water where the embryo curculio will drown. I think this insect propagates its species as fast in apples, as in any other fruit. If any one doubts this, let him visit a tree laden with fruit, when it is about the size of cranberries, or walnuts, and carefully examine the abortive specimens with which the earth is sometimes literally covered; observe the crescent marks, and the small worms in the fruit, and I trust he will be convinced.

Where these fallen specimens are exposed to the scorching rays of the sun, it usually bakes them, and their contents; but when shaded, the embryo curculios nearly all mature. Pick and boil or empty this infected fruit into the river. This may seem like too much labor, but you will surely receive a rich reward for care and labor thus bestowed.

Dracut, Feb. 15, 1854.

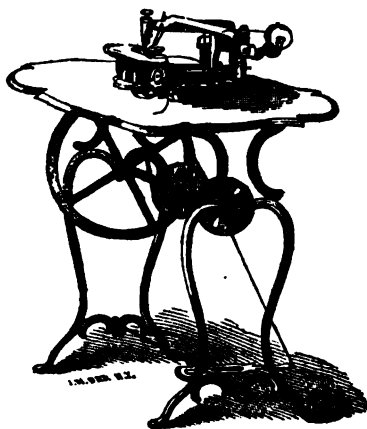
ASA CLEMENT.

For the New England Farmer.

SEWING MACHINE.

BY HENRY F. FRENCH.

"Work—work—work,
From weary chime to chime.
Work—work—work,
As prisoners work for crime,
Band and gusset and seam,
Seam and gusset and band,
Till the heart is sick, and the brain benumbed
As well as the weary hand." *Hood.*



TO THE LADIES OF NEW ENGLAND:—Were an angel to appear before you, some pleasant morning in spring, and say, that he had come to bestow upon you, for your patient endurance of life's wearisome labors, a reward of *two hours of time* daily—two hours of waking conscious, active time, for all your future life, how would your schemes of life expand. Your education and early associations have inspired you with a taste for literary pursuits, but family cares, the want of servants, and the want of *time*, have compelled you to relinquish them.

You were instructed in music and drawing in your youth, you cultivated flowers, and traced in botany, and its kindred studies, the curious analogies of nature, but in later years, your *time* has been filled with duties more imperative, and with a secret sigh, you have, without complaint, sacrificed on the household altar, the pleasures and graceful accomplishments of your early years. As to mere amusements, you could, well enough, bear that loss, but to feel that the cultivation of the *mind* must cease, that you must stop in the pursuit of knowledge, while husband and brother and friend are still advancing, to be conscious that the sympathy that once bound you together in intellectual pursuits, is daily lessening, this is a burden that no one can help you to bear.

Blessing the good angel for this most precious gift, you, who better than all others, know its value, would treasure it with sacred care. You would devote it, not to frivolous amusements, not to idleness, or dreamy listlessness, but to social enjoyments, to mental culture, and to active benevolence.

Constant physical labor is not, perhaps, a severe burden to the ignorant and degraded, but for one whose moral and intellectual training has elevated him to the true appreciation of life's great ends, a merely servile life, a life of manual labor, is not enough. To ladies of education and refinement, the petty toils and harassing cares of the family are trying, indeed, but when we add to those, the constant demand upon them for labor with the *needle*, an employment, trying alike to the patience, the sight, and the nervous system, an employment which never ends, which takes every moment that ought to be given to leisure, amusement or reading, we have some idea of the value of the angel gift, with which we commenced.

The spiritualists tell us of the influence of mind over matter, how, by mere force of the human will, tables and other lifeless quadrupeds may be made to walk, as if alive, but the laws by which such things are done, are not sufficiently understood, to enable us to work out from them any valuable practical results. But the laws by which wood and iron may be constructed into *machinery*, and so made, instead of human bones and sinews, to perform servile labor, are working, always, for human comfort and human freedom.

Of this description is the recently invented *Sewing Machine*, an invention doubtless, sent down from Heaven, in answer to the prayers of suffering thousands, an invention destined to bestow upon New England women the priceless boon of time for mental cultivation and social enjoyment. Slavery to the needle is the peculiar slavery of New England ladies. The price of such labor, to those who are paid for it, is pitifully small, and yet the customs of society demand so large an amount of needlework, that even those, who among

us age accounted rich, cannot afford to pay for it. Other avenues to competency are opening to our daughters, who must labor to live. The pen of the editor, the types of the printer, the tools of the painter, the engraver and the designer, are already, partly, in female hands. Let us encourage the republican sentiment that labor is not degrading, and give employment to women, in whatever departments of mental and physical toil, she is found best fitted to fill. Let her teach in our schools, let her tend the looms in our factories, let her take the place of the dandies behind the counter, let her write in our banks and counting rooms, and keep the records in our offices. Give her the clerkships in our post offices and other departments of the government, and do not longer drive her from fair competition with the other sex, and so depress the value of her labor, and keep her dependent and helpless. Let a good education, and a pure character, be to your daughter, as to your son, a capital, that shall ensure an independent support. Read Hood's "Song of a Shirt," and then sneer, if you can, at the efforts of those, who are striving to provide for woman better rewards for labor than the poor pay of a sewing girl.

"Oh! men with sisters dear,
Oh! men with mothers and wives,
It is not *linen* you're wearing out,
But human creature's lives."

While female labor is finding more profitable employment than sewing, no relief could come to ladies in charge of families, except by the use of machinery. I am told, that the common sewing for a family of eight persons, would employ one sempstress constantly. Now this, in any part of our country, involves a great expense. At the South, where women are bought and sold, your *living* machines would cost, perhaps, a thousand dollars, and be very expensive to maintain. At the North, we cannot afford the expense of hiring such labor, but fortunately, we can now do what is far better than either. In my own house, in Exeter, we have in use, one of "Wilson's Stitching Machines," manufactured by Wheeler and Wilson.

It has been tested long enough to justify us in confidently recommending it to those who have large families, and what most of us, in New England, have therewith, limited means of support. A woman's pen is alone competent to set forth the advantages of this wonderful piece of mechanism.

The following statement is from the pen of Mrs. M. Oakes Smith, a lady not unknown to fame. The ladies of my own household assure me that the good qualities and conduct of the machine are by no means overstated:

Messrs. WHEELER & WILSON, Manufacturing Co.

GENTLEMEN:—Having had one of your sewing machines in my family for more than two months, I am willing, unsolicited, to give you my testi-

mony in its favor. Adverse as I am to append my name to the ordinary projects of the day, I wish, nevertheless, to say something through such a medium that may benefit my sex.

In the first place then, your machine is all that it purports to be. I have myself learned to use it with skill, that I may pronounce understandingly upon its merits.

I have never had a needle broken in its use, nor has it in the least become disordered; notwithstanding that I have allowed several persons to learn upon it, and all kinds of household work has been executed thereon; indeed fine muslins and heavy broadcloths have tested not only its delicacy but strength also.

Secondly the work does not *rip*, and every housekeeper can appreciate that quality. The work is what is called stitching, and I find it much more elegant than a common hem for all needle purposes. It gives handsome finish to the tucks and hems of skirts, while in shirt-making no work done by the hand can compare with that executed upon the sewing machine.

No woman's eyes or fingers can execute work with an equal precision and finish.

Thirdly, it is a vast saving, not only of nerves and patience, but of time also. The machine is equal to the labor of nine or ten persons. One individual can sit profitably at the machine, and do that proportion of the work.

Now these are facts which I wish to present to the heads of families. I wish to see the petty toil of my sex lessened whenever it can legitimately be done. I find the sewing machine does this in one very essential branch of home industry, and, therefore, I wish to urge upon families and neighborhoods, to combine together and procure an instrument calculated so much to alleviate household toil.

If our brothers ply any vocation of thrift or necessity, they are careful to procure the best tools. They do not hesitate to expend hundreds and thousands for the purchase of all sorts of "labor-saving machines" to lighten their own burdens.

Now, will they not carry the principle further, and by the purchase of the sewing machine, lessen the toil, the anxieties and the wear and tear of nerves to their wives and daughters? I do not say this to sell your machines, gentlemen, but I say it because I sympathize with my sex.

I know how wearisome is the bondage of the needle to woman, and I seize upon this invention of the sewing machine as one of the best means of relief the age affords us. I do not know that it is even second to the cotton-gin.

I look upon machinery as the great emancipator of the word, and am doubly thankful to see its benefits extended to the relief of us—our sex.

The price of this machine, \$125, is to many quite startling. The man who can readily enough pay twice that sum for a piano, for a daughter, who has no taste for music, or for an observatory and weathercock on his barn, or for a new carriage, which he does not need, and has not room for, in his buildings, cannot afford to pay so much, for so small a matter as his wife's health and happiness!

But I will not, even in jest, thus wrong my brother men. When they have once seen this little

machine in operation, when they have seen materials of all descriptions, from a cambric kerchief to a boy's overcoat, rapidly, faster than half a dozen persons can fit the work, beautifully stitched and finished, when they have seen the labor, which would have occupied the hands of the loved ones of their households the livelong day, performed in a single hour, they will be foremost in the experiment, and join in blessing the kind angel, which has brought this unexpected alleviation to the condition of New England matrons.

Exeter, N. H., March 28, 1854.

NATURAL BEAUTY OF ORNAMENTAL TREES.

MR. SLEEPER:—Excuse me, sir, if I once more call your attention to one of the most barbarous violations of good taste ever indulged in by the denizens of Boston, or any other city or town.

You will recollect that in the course of the last summer I wrote you a letter answering a query I had seen in your paper, as to the utility of scraping and whitewashing shade and ornamental trees.

Lest I weary your patience, I will not repeat the detailed arguments I used to prove the folly and evil of such a proceeding, but will ask your attention a short time, whilst I pursue the subject a little farther.

That letter was written too late to remedy the evil of that year, and I take this early time to re-awaken interest, with the hope of preventing its repetition.

The winter frosts are beginning to relax their hold, and the long spring rains are seeking to unlock the frozen fastnesses of the earth: now, therefore, let all feel again the ardor of the last season to do their share towards beautifying nature. However much the rains may be able to thaw the earth, one benefit has already resulted from them, in the rejuvenating and re-developing of the mosses and lichens.

Perhaps you remember that I dwelt, in the before mentioned letter, at some length upon the rare beauties of color and form portrayed upon the boles of the trees, by the lichens and liverworts.

The long rains and misty weather of spring are peculiarly favorable to the development of this kind of beauty, and I now call upon you, and all lovers of nature, to look forth and recognize it around you; do you love the rich coloring of the painter's landscape? Look upon the stem of the first noble elm you meet, *unimproved by the hand of man*, and you will find the artist's boasted beauties set at naught.

When first your eye meets the tree's stem it will see only a rich deep brown, blue, or golden yellow, but as it lingers longer, as curiosity draws you nearer the tree, new charms will develop themselves with surprising rapidity; the uniform brown will separate into the most harmonious shading of red, brown and black; the blue will become now white, now blue, now purple or green; the golden yellow will burst upon you through the mist and gloom like the lingering of last summer's sun. You may see golden tints rivalling Claude's sunsets, and blacks and browns surpassing Rembrandt. If you are a lover of the beautiful in form,

where can you find such many interweavings of ever changing and beautiful lines as in the outlines of lichens and liverworts, where frond overlies frond, or bending and rising, conform to the roughnesses of the bark. Can any one fail to bow with reverence before the deep scarred and furrowed bark that tells of wars with the elements, and battles fought and victories won, before we were even children; or when we see some kindly tuft of moss with its long gray locks bending and nodding over, and clasping, the broken stem, or decaying trunk, can we help comparing it to the grey hairs of age? Let no barbaric hand touch the bark of a forest tree; as soon scrape (to clean) the fair skin of your child or the surface of an alabaster statue.

I have met the argument of utility before, and shown its unsoundness, and now appeal to nothing but the love for God-given beauty. How disagreeable the contrast and shock, when gazing upon the outspread branches of some mighty tree, seeming the very impersonation of strength, grandeur, grace and beauty, our descending eye meets no easy gradation from the graceful sweep of the rich brown branches, blending with the harmoniously painted stem, but a tuft of brush on the top of a column of whitewashed wood. Let no one who has ever laid, or permitted another to lay a ruthless hand upon such charms, and remained unrepentant, dare to claim the least appreciation of the beautiful, or true taste—he must be devoid of it. Do you think the artist's eye could have suffered it, or the artist's hand executed it? No, it is the result of bad logic, aided by the *dicta* of some ignorant pretenders to the title of gardeners or foresters.

But before I leave the subject, allow me to say something regarding the planting of trees, and the kinds to be selected. In making plantations by the roadside or in our grounds, several conditions must be taken into account; beauty in the winter and early spring, shade and beauty in the summer, an easy and rapid growth, and particularly, if by the roadside, a desire to have them beautiful and healthy for several years.

Were they willing to bear the noise, dust and heat of cities, some of the evergreens would be most desirable, but for their perfection, fresh and free air is necessary.

Next to them is the American elm. Of late a cry has arisen against the elm, because it loses its leaves early and is liable to worms; the latter difficulty, care will for the most part remedy, and the former is more than counterbalanced by its wonderful combination of good qualities. No other tree combines at once elegance, delicate beauty, symmetry, grace, strength, power and grandeur, in any similar degree.

Begin now, sir, and watch the deciduous trees through the year, and see if at the end of it you do not agree with me that the American elm is nearer an evergreen than any other. Look at it now—with its stem and top delineated against the yellow evening sky; how soul-inspiring are the ideas it suggests. And now draw nearer; look up through its branches and see its tracery against the blue beyond, with the many interweaving of bough over bough, the elegant feathering of the spray, and the almost leaf-likeness of the buds. Wait now a little till the sun and rain have swelled those buds, and their bursting sides part for the coming seed. Now you will think it has leaved; but no! another change is taking place; the leaf is starting,

and before you are aware, the whole tree has leaped into green clad life.

Time passes, and other trees have also been covering their limbs with a green mantle. But soon the summer is gone, and before any other harbinger of the winter, the sensitive elm begins to leave the sober green for bright yellow, and our streets and lanes are decked for a gala day. The leaves drop—but has the beauty passed with them? Is it even diminished? We are no longer charmed with the rich luxuriance of vegetation and its color, but again we have the beautiful outline against the sky. Believe me, sir, I do not wish to detract from the claims of other ornamental trees, for few know them better or appreciate them more than I, but if we are to plant for the best effects in this *half winter climate*, the trees must have a *winter as well as summer beauty*.

Let all compare for themselves the naked charms of all the ornamental trees; look upon them in their parts, appreciate their wholes, and I doubt not most will agree with me, *that the American Elm is the most perfect of all deciduous trees*, and as an emblem of beauty, of that happy combination of parts necessary for the perfect whole, is unrivalled.

As to its easy, quick and sure growth, nothing need be said. One thing more and I have done. How long are trees planted in public streets expected to live? Is it not for many, many years? and do you suppose any of our city fathers or of their Irish foresters, *ever ask themselves how long-lived the tree they are about to set ought to be, by nature?* I assure you, sir, that *twenty years* will see many of the species of trees, now most often planted, *beyond their prime, and when they have died, and been removed, what kind of trees do you suppose will grow in their exhausted beds?* Very respectfully,

Roxbury, March 10, 1854.

R. M. C.

Boston Journal.

AMERICAN POMOLOGICAL SOCIETY.

The fifth session of this National Association, will be held at Horticultural Hall, in the city of Boston, Massachusetts, commencing on Wednesday, the thirtieth day of September next, at ten o'clock, A. M.

It is intended to make this assemblage one of the most interesting that has ever been held in this country, on the subject of Pomology. All Horticultural, Agricultural, and other kindred Associations, of North America, are therefore requested to send such number of delegates to this Convention, as they may deem expedient.

Pomologists, nurserymen, and all others interested in the cultivation of good fruit, are also invited to attend the coming session.

Among the objects of this Society, are the following:—

To ascertain, from practical experience, the relative value of varieties in different parts of our widely extended country. To hear the Reports of the various State Fruit Committees, and from a comparison of results, to learn what fruits are adapted to general cultivation; what varieties are suitable for particular localities; what new varieties give promise of being worthy of dissemination; and especially, what varieties are generally inferior or worthless, in all parts of the Union.

In order to facilitate these objects, and to collect and diffuse a knowledge of researches and discov-

eries in the science of Pomology, members and delegates are requested to contribute specimens of the fruits of their respective districts; also papers descriptive of their art of cultivation; of diseases and insects injurious to vegetation; of remedies for the same, and whatever may add to the interest and utility of the Association.

The Massachusetts Horticultural Society has generously offered to provide accommodations for the Society, and also to publish its proceedings free of expense.

All packages of fruit intended for exhibition, may therefore be addressed as follows:—"For the American Pomological Society, Horticultural Hall, School Street, Boston Mass.;" where a Committee will be in attendance to take charge of the same.

All societies to be represented, will please forward certificates of their several delegations, to the President of the American Pomological Society, at Boston.

MARSHALL P. WILDER, President.

H. W. S. CLEVELAND, Secretary.

Boston, April 1st, 1854.

ROOTS OF PLANTS—TRANSPLANTING.

The roots serve to hold the plant in its place in the earth, and at the same time perform the important functions of respiration, and of absorption of moisture and of the various matters which go to make up the substance of the plant. It is the only part of the plant which takes up the earthy matter, that is, the peculiar part of the plant. The power of the roots in absorbing water may be tested by taking a small plant from the earth and immersing its roots in a vessel of water; let it be a tumbler; and having another similar vessel with an equal quantity of water standing near. The difference in the diminution of the body of water in the two vessels will be very great, and will show the quantity absorbed by the plant. It will take up many times its own weight of water in a very short time. An experiment with four plants of spearmint in this way, being kept with their roots in water 56 days, proved that they took up about seven pints, the weight of which was about 54,000 grains, while their own weight was only 403 grains—being nearly twice and a half their own weight each day.

The absorption of the water by the roots must be in proportion to the exhalation by the leaves and the digestion and assimilation in the tissues in the plant, or it will suffer in health. This is the case in seasons of drought or in dry situations. The absorption is mostly performed by the new and growing root fibres or spongioles, which are spongy at the extremity. These young fibres are therefore of vital importance to the plant; and by breaking these, in removing a tree for transplanting, the power of absorbing nourishment is diminished, often to such a degree that the tree languishes, and sometimes perishes.

One of the most wonderful things in the vege-

table physiology is that each different plant should, by means of this absorbent power of the roots, take up only that peculiar earthy aliment which is suited to its constitution. Thus if a stalk of wheat and a pea vine grow together, the roots of the wheat take up the siliceous, while those of the pea take up the calcareous parts of the soil.

WHEAT.

According to the most correct analysis, wheat contains in one hundred parts, 33 per cent. of ashes, and these ashes consist of 12 per cent. lime, salts, and 51 of silica, or sand. Hence, wheat will sometimes succeed after buckwheat, as they are composed of different elements, both of which may co-exist in the soil.

PEAS.

The soil for peas should not be too liberally enriched. A great degree of fertility appears not to be required to develop the excellencies of this crop, which is indebted less to the soil than many other vegetables, and more to the air, for the food which perfects its growth.

For the New England Farmer.

WARTS ON PLUM TREES.

MR. BROWN:—I had noticed that my plum trees, of which I have several varieties, during some years, were becoming disfigured by the unseemly excrescences, of which there have been so many complaints of late. I thought I would attempt, at least, to ascertain the cause, since this knowledge is indispensable to a cure. Last April, I resolved to cut up at the roots all the trees which had become very badly diseased, and to prune from the others all the branches which had become affected; for I had noticed in attempting to cut out the warts, that the wood was in almost every instance diseased to the heart. While engaged in this process, my son severed a number of the warts carefully from their stock, and placed them in a tumbler covered with a glass cup-plate. Two or three weeks subsequently, on a further examination of the trees, he found several warts which had commenced a vigorous growth, about which were a multitude of little white worms, apparently of the same species as those which later in the season committed such fearful depredations in the orchards and other fruit trees through the country. In some cases, these worms had formed their nest about the wart, in others, seemed imbedded under the bark, so that when disturbed, they would retire from view. But the wart, rather than the adjacent parts of the limb, seemed to be their home. This was before the worms made their appearance on the trees generally.

Several pieces of limb having these excrescences upon them, my son cut off, and we placed them with the warts before collected, in the tumbler, which we placed in a vessel of water, hoping thereby to prevent the escape of anything from it. The genial atmosphere of the house hastened the growth of the worms, and as our covering was not sufficiently close they escaped, and many of them were drowned, while some succeeded in swimming to the edge of the vessel, from which they let themselves down by their web to the table on which the vessel stood. These worms soon disap-

peared, but thus far we had discovered no change in the warts themselves.

Some days later, however, about the 20th of June, we found on examination of the tumbler, that these warts had become masses of black, porous matter, evidently eaten through and through by some worm. Still there was enough of cohesion about each mass to preserve its form, except that it was somewhat increased in size. Opening these masses, we discovered in each a small white grub with a dark head; in some, more than one grub. A few days later, this grub had become a chrysalis. Still later I examined again, and found on removing the cover, several small black flies, of slender form, such as we had never before noticed, some of which escaped us. These I supposed to proceed from the warts, because on examination I found in some of them certain little insects, evidently becoming transformed into flies. One chrysalis I opened, contained an insect of a grayish color, looking as much like a bug as a fly. Another contained the same insect in a torpid state, which after a little exposure to the air became active. These, I suppose, both became flies after the lapse of a little more time.

Of the connection between the little worms first mentioned, and the warts, I have no opinion, because they soon after appeared in countless myriads, on trees upon which there are no excrescences like those on plum trees.

From the other facts I draw the following inferences—that the little fly alluded to, is probably the mischief-maker in this case—that during the summer it deposits its egg in, on, or under, the bark, infusing therewith a poison that occasions the excrescence, which forms over the egg so as effectually to shield it—that here it lies through the winter, until the return of warm weather, when it hatches; becomes a grub—a chrysalis—a fly—thus reproducing its species—that the probable preventive of the ravages of the insect is to cut off, either in the autumn, or early in the spring, every branch on which an incipient wart makes its appearance, and burn it.

I know, Mr. Editor, that it is not commonly safe to base a theory upon a single experiment, or investigation. I therefore only give you the process of my investigation with its results, and my deductions therefrom, without any strong confidence that these deductions are correct. Perhaps others have investigated this matter in a similar way. If so, I hope we may learn the results.

Certain it is, that unless something can be done to arrest the destruction now in progress among the plum trees of this region, we shall soon cease to enjoy this delicious fruit.

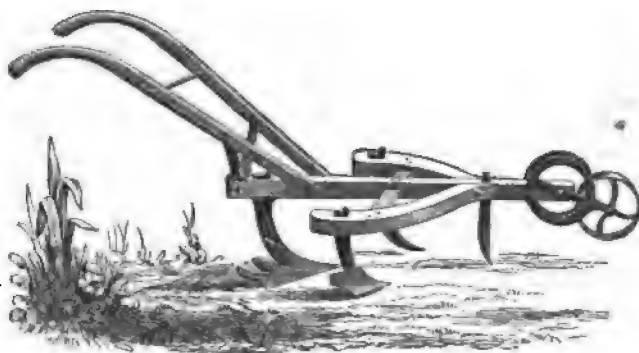
L. MATTHEWS.
Cornwall, Vt., Feb., 1854.

FINE HOGS.—A few days ago, we saw at Stall 70, Quincy Market, eight of the finest porkers of the season. They were the property of J. Fogg, Esq., of Deerfield, Mass.— $\frac{1}{4}$ Suffolk, but one year old, and the lot weighed 2,428 pounds. They were fed on equal parts of broom corn seed and Indian corn, both ground, until the first of January, and after that time on corn meal alone. The first premium was awarded these swine at the Franklin Cattle Show last fall. The weight given above was after the shrinkage had been deducted. We have never seen a finer lot of pork.

THE HORSE HOE.

This cut represents an instrument recently invented by the manufacturers, Messrs. RUGGLES, NOURSE, MASON & Co., which they name the Horse Hoe, and which we have used through one season and have spoken of in terms of approbation. It is designed for the hoeing or cultivation of corn, the various root crops, cotton, hops, young nurseries, and hoed crops generally; is quite light, easily managed, and of very easy draught for one horse or mule; a thorough pulverizer of the surface-soil, and exterminator of weeds and grass. The forward tooth is simply a coulter, to keep the

implement steady and in a straight-forward direction; the two side or middle teeth are miniature plows, which may be changed from one side to the other, so as to turn the earth from the rows at first weeding when the plants are small and tender, or towards them in later cultivation—at the option of the operator; the broad rear tooth effectually disposes of grasses and weeds, cutting off or rooting up all that come in its way, is a thorough pulverizer of the surface, sifting the earth and weeds through its iron prongs or fingers in the rear, leaving the weeds on the surface to wilt and die, and the ground level and mellow. For



hoeing carrots, turnips, &c., where the rows are narrow, the side teeth are taken out, and the rear tooth with the forward one as a director to guide the instrument, hoes and mellows the ground between the rows very perfectly. The mortises in the frame or wood work of this instrument are adapted to receive the kinds of teeth used in the Expanding and Reversible Tooth Cultivator, which we shall give next week.

For the New England Farmer.

POTASH AS A FERTILIZER.

MR. EDITOR:—Seeing an inquiry in your paper of 25th ult., whether any one had ever made use of the Carbonate of Potash as a fertilizer, I answer that I have tried it on a limited scale with satisfactory results. My immediate object, in the first place, was to kill out the sorrel in a garden bed. Having broken up a small piece in a favorable spot in a pasture for the purpose of raising carrots, I found in a few years that the sorrel was creeping in from the adjoining grass ground faster than I could conveniently destroy it by the use of ashes, lime or the hoe. I therefore selected a particular bed for the trial of the Potash, reserving others for other experiments, having for convenience divided the piece into beds 2 rods long and 1 rod wide. As sorrel roots or rather runners are near the surface, I first levelled the bed, and then sowed on the surface 2 lbs. Saleratus, and raked it in with a common garden rake, scarcely doubting but that the ley would be so strong as to prevent my seeds from sprouting. But I was mistaken; they came up and grew finely. I have since tried it on other crops with decided good effect. My onions last

year were the best I ever raised, but I am not certain but that some other fertilizers that I had applied in previous years aided in bringing about this result. The Potash seems to have a three-fold beneficial effect. It not only sweetens, as it were, the ground, but furnishes food for plants, and serves to keep the soil moist by absorbing moisture from the atmosphere.

As Ammonia is exceedingly volatile, I think the method of applying diluted Aqua Ammonia, as suggested by your correspondent, somewhat objectionable. I propose the following, instead, which will, at least, have this recommendation, "if it do no good it will do no harm." The Carbonate of Ammonia is made by mixing Chlor. Ammonia with Lime. Any one can satisfy himself of this by pulverizing a little of the former (the common Sal. Am. of the shops, which is not costly) with rather more than an equal quantity of pulverized Lime; A double decomposition takes place and Carb. Ammon. and Chloride of Lime formed. Now if Lime be ploughed in, and intimately mixed with the soil at a considerable depth, and a small quantity of Sal. Ammon. be scattered on the surface and raked in, it will slowly and gradually dissolve, and coming in contact with lime, will give out Ammonia, which will be absorbed by the soil and be taken up by the plants as required by them. A similar mutual decomposition takes place, and Ammonia is evolved if pearlsh is used instead of Lime. Perhaps charcoal would be a good addition as an absorbent. But after all, Mr. Editor, a single line of successful experiment is worth a whole page of theory. I hope that some of your readers who have leisure and means, will try the above and other experiments, and let us know the results, whether favorable or otherwise. I suppose that the particular proportions of the ingredients I have men-

tioned are of no great consequence, provided there be an excess of Alkali. Should this mode of generating Ammonia prove successful, and I see no reason why it will not, it may, after a few experiments to ascertain the proper quantities, be useful in preparing hot-beds, &c. G. P.

New Salem, March, 1854.

For the New England Farmer.

COUNTRY FARMERS AND CITY MECHANICS—No. 2.

MR. BROWN:—In my first article, which you did me the kindness to publish, I promised to say something at another time upon the subject of providing for and rearing families in the city and in the country. But I find it a much harder subject to write upon than to think about, as indeed most subjects are to those little accustomed to giving their thoughts a "local habitation and a name."

I remark, then, by way of beginning, that both my own experience and my observation of the experience of others, teach me that the advantages of a city are decidedly on the side of single or unmarried mechanics; and that it is from confining their observations to this class, that country people form a too favorable opinion of city life. I am willing to admit that an unmarried mechanic, if a superior workman, and blessed with health and those habits of economy learned only in the country, may lay up more money in the city, than a journeyman farmer can in the country; or, if a little given to display, that the city youth may dress and keep himself in better-looking style than can the farmer-boy—his boots may be higher polished, and so may his manners,—(both are sometimes injured by the process) and that on his visits to his country friends he may display a free-and-easy bearing in company that is admired by the ladies, and envied by the other sex who find themselves doomed to tread the "dull round their fathers trod."

But folks are not always young, not always single. In both city and country, matrimony seems to be as much in the course of nature, as the rheumatism or old age. The city mechanic with his ten dollars a week marries; and—a most favorable supposition—let him choose a country girl for his wife; one who was brought up to similar habits of economy with himself. Overpersuaded by the advice of city friends, they commence life by "boarding out." Six dollars and a half a week, leave three and a half for clothing, firewood, lights, &c. They soon find this will not do. They must keep house. Several half days are lost in "house-hunting," and the happy pair find themselves established in their humble home. Established? Have they bought the tenement they occupy, and mutually resolved to take hold and pay for it as quickly as possible, so that their home though homely may soon be their own? Nothing of the kind. City journeymen seldom think of such a thing. They have hired it—hired it for a month! Ten dollars a month for bare rooms to live in; but every body says it is very cheap. Many who have no larger wages pay one hundred and fifty, two hundred, two hundred and twenty-five, fifty, seventy-five, and even three hundred dollars a year.

Here then they have fairly "begun the world." Every thing has been "put to rights." The car-

pets, furniture, &c., which were selected almost as much on the opinions of their newly made city friends, as by their own taste, and which cost rather more than what their own judgment dictated as necessary to "begin with," have been arranged, and are all paid for. The good house-wife has had time to look about the premises a little more thoughtfully, and to contrast her new home with the old one that she left so willingly. She has much better furniture; her parlor, though smaller than the "square-room" of her father's house, is neater, prettier, nicer. But her empty cellar, or no cellar at all! She does wonder, as the "marketing" is brought home, that she used to think so little of the huge potato-bin, the barrels of pork, the firkins of butter, pots of lard, boxes of apples, heaps of "garden sauce," shelves of milk, cream, cheese, pickles, good old cider apple-sauce, &c., that used to clutter-up their cellar. Now, all these things must be purchased—and at such prices! Nine dollars for a little heap of coal, and the same for a cord of wood to kindle it, twenty-six cents for a pound of butter, thirty to forty for a peck of potatoes, twelve to twenty for a pound of fresh meat, twenty to thirty for a dozen of eggs, and luckily if not stale, at that,—every pound of lard, every string of onions, every quart of beans, every pint of milk, and even every pail of water (if they take the Cochituate) has a price, and a price that must be paid or the article cannot be had.

These are small things, to be sure, but "Small sands the mountains make," cents make dollars, and "trifles life," and it may be well for those who envy the large wages of city mechanics to heed even these small leaks that so many of us find quite sufficient to sink our ships.

Now, to put the result of our cogitations, thus far, into a sort of arithmetical statement, we will allow our young house-keepers three dollars a week for fires, lights, provisions, &c., two dollars and fifty cents a week for clothing, bedding, furniture, utensils, &c., and, say, twelve dollars a year for pew-rent and two for use of library, and for lectures,—making no allowance for a "hole in the pocket" that is so often found by the temptations of a city, none for theatres or concerts, none for cigars,—and we have,

For rent of rooms, per year.....	Dr.	\$120,00
For provisions, &c. ".....		150,00
For clothing, &c. ".....		130,00
For pew-rent, library, &c. ".....		14,00
		\$420,00
By wages at \$10 per week.....	Cr.	\$520,00
Balance for a "rainy day".....		\$100,00

Before taking this result as the basis of a comparison of the relative profits of city mechanics and country farmers, several questions arise for discussion. Do all city mechanics get as much as ten dollars a week? Do not some get more? Do their families always consist of only two members? Are they ever-sick, or out of work? Is their rent ever raised, or their pay outdone? Do they ever move, despite the caution of Franklin, that three removes are as bad as a fire? These questions can probably be answered by those who have the patience to read this article, as well as I shall do it if I make the attempt in a future number of the Farmer.

A CITY MECHANIC.

Boston, April, 1854.

For the New England Farmer.

THE PROFIT OF FATTENING SWINE.

The following facts are offered in corroboration of the views advanced in my late article on the profit of fattening swine in New England:—

On the 16th of December last, I purchased four pigs which were the remnants of two litters born about the same time in September previous, and put them in warm apartments, embracing a place for making compost and an eating room leading out of it. Once a fortnight or so during the winter, about a cord of either muck or scrapings from the woods was thrown into the pen, and daily the manure from two horses. The pigs were kept bountifully supplied with straw for bedding, which they arranged in one corner of the compost pen to suit themselves. Enough fermentation was generated in the compost to make their bed warm, and so far to keep out frost that it only appeared in a light scum during the very coldest days. The scrapings from the woods containing some nuts together with decayed sticks and roots, contributed to the health and thrift of the pigs.

From Dec 16th, to the 18th of March, the pigs had as much corn and cob-meal as they would readily eat, when it becoming inconvenient to accommodate them longer with apartments, they were sold to the butcher at 8c per lb.—he throwing in the slaughtering.

Immediately after feeding them at a given time, the meal for the next feeding was measured out and put in the bucket and hot water added—the contents standing in a warm place to soak and swell, and becoming very much increased in bulk before being fed to the pigs. The meal consumed was exactly measured from day to day, and the quantity is known to be as follows:—

First 29 days four pigs ate	345	quarts,	or 12	quarts per day.
Next 49 " " "	882	"	18	" "
Next 18. " " "	336	"	21	" "

Total corn and cob consumed 1566 quarts, or 49 bushels.

In order to satisfy myself of the amount of corn involved in the above 49 bushels of corn and cob-meal, I have measured out enough corn in the ear to make, if shelled, just a bushel of corn, had it cracked and ground, and found it made by stricked measure a little more than two bushels of corn and cob-meal. An inferior quality of corn in the ear might not quite hold out measure when ground; but I am satisfied that a full medium quality will hold out, where the toll is paid in money, and shall therefore call the above 49 bushels of corn and cob equal to 24½ bu. clear corn.

The four pigs weighed, dressed, 616 lbs., and made some 10 loads of compost more than would otherwise have been made. They may therefore be accounted with as follows:—

616 lbs. of pork, a 8c., net.....	\$49.28
Deduct 49 bu. corn and cob, or 24½ bu. clear corn, a \$1 per bushel.....	24.50
Toll for grinding 49 bu. corn and cob, a 4 c. per bu.....	1.96
Paid for pigs, Dec. 16th, \$4 each.....	42.46
Balance, over and above \$1 per bu. for corn consumed, of 28 c. per bu., or in all.....	5.82
And the pigs have left 10 loads of compost, worth a bushel of corn each.....	10.00
From which deduct, if you please, the cost of supplying the raw material, say 50 c. per load, which is rather too high.....	5.00
Profit on the four pigs.....	\$11.82

I regret that I did not have the pigs weighed on the 16th of December, because if I had done so it would be easy now to find how much more pork a bushel of corn ground, cooked and fed with the addition of the cob was in this case made; but from as exact an estimate as I can form, judging from the weight of some of the better pigs of these two litters, sold a few days previous to the time I bought mine, I am induced to think the pigs must have gained not far from 15 lbs. of pork for each bushel of clear corn consumed; which, considering that the fattening process was conducted during the very coldest portion of the year, argues pretty well for feeding corn and cob ground together.

I have briefly to add to my former remarks on selecting pigs for fattening, that so far as I know, pigs of a round, barrel-like frame are apt to yield rather thin pork and too much offal; but those having extra depth of carcase, and not so fine bred as to lack bone to sustain them while fattening, nor so coarse bred as to be too late in maturing, but of a just proportion in this regard, are the right kind for profit. Pigs bred too fine, early cripple in the legs when fed high, so that they are unable to exercise sufficiently to promote healthy appetites and strong digestion, and therefore make but light weight, and their pork is not generally so saleable nor desirable for domestic purposes as that of younger pigs of the first quality. Pigs with rough, staring bristles and a generally well look, are not so kindly to fatten as those of a mel-low and wavy appearance and quiet disposition.

F. HOLBROOK.

Brattleboro', March 28, 1854.

PLANT THE FRUIT TREES.

Those who have the 4th volume of the Monthly Farmer, are referred to the excellent Essay by Col. WILDER, on the varieties and preservation of fruit, on pages 194 and 195, and to the list given by Mr. FRENCH, of Braintree, on page 197; also to a selection of pears on page 225, and on page 241, same volume for a list by Mr. JACQUES, of Worcester. But for the convenience of those who cannot make this reference, we give selections from the lists of these gentlemen.

COL. WILDER'S LIST.

APPLES.

<i>For three sorts:</i>	Williams,
Large Early Bough,	Minister,
Gravenstein,	Fameuse,
Baldwin.	Hubbardston Nonsuch,
<i>For six sorts, add:</i>	Roxbury Russet.
Red Astrachan,	<i>For Winter Sweet Apples:</i>
Porter,	Seaver Sweet,
Rhode Island Greening.	Danvers Winter Sweet,
<i>For twelve sorts, add:</i>	Tolman's Sweet,
Early Harvest,	Lyman Sweet.

PEARS.

<i>For three varieties:</i>	<i>For twelve varieties, add:</i>
Bartlett,	Andrews,
Vicar of Winkfield,	Belle Lucrative,
Beurre d'Arenberg.	Seckle,
<i>For six varieties, add:</i>	Flemish Beauty,
Bloodgood,	Urbaniste,
Louise Bonne de Jersey,	Gloist Moroccan.
Golden Beurre of Bilboa.	

PEACHES.

<i>For three sorts:</i>	<i>For six sorts, add:</i>
Early York (serrated foliage),	Large Early York,
Crawford's early,	George Fourth,
Old Milton Free.	Crawford's Late.

MR. FRENCH'S LIST.

As the best early apple, Mr. FRENCH recommends the Early Harvest. The best apple is the White-Seck-no-further. If he had but one apple tree, he would prefer the R. I. Greening. The best sweet apple is the Seaver. For two varieties, he recommends the Porter and Rhode Island Greening. For the four best summer varieties, the Harvest, Red Astrachan, Williams Favorite, and Summer Pearmain. Four best autumn varieties, Porter, Fameuse, Gravenstein, and St. Lawrence. Best five winter varieties, R. I. Greening, White-Seck-no-further, Baldwin, Roxbury Russet, and True Nonsuch. The best apple for stewing is the Hawthornder.

If he could have but one cherry, it would be Downer's Late Red; the best of all cherries is the Knight's Black Eagle. The earliest cherry that is prolific is the May Duke—the latest the Late Duke.

The Green Gage he considered the best of plums. If one plum is to be selected, he would prefer Prince's Imperial Gage; for two, add Smith's Orleans; for three, Coe's Golden Drop.

GEORGE JACQUES' LIST.

PEARS ON QUINCE.

NAME.	TIME OF RIPENING.
1. Beurre d'Amalis.....	September.
2. Louise Bonne de Jersey.....	Sept. and Oct.
3. Urbaniste.....	Oct. to Nov.
4. Duchesse d'Angoulême.....	November.
5. Beurre Diel.....	Nov. and Dec.
6. Ghout Morceau.....	Dec. and Jan.

PEARS ON PEAR ROOTS.

1. Rostelmur.....	Aug. and Sept.
2. Bartlett.....	September (early.)
3. Flemish Beauty.....	September (late.)
4. Seckel.....	October.
5. Dix.....	Oct. and Nov.
6. Beurre d'Arenberg.....	Dec. and Jan.

Extending the list, I would add,—

7. Madeline.....	August.
8. Andrews.....	September.
9. Belle Lucrative.....	September.
10. Louise Bonne de Jersey.....	Sept. and Oct.
11. Urbaniste.....	Oct. and Nov.
12. Winter Nellis.....	Dec. and Jan.

APPLES.

1. Porter.....	Sept. and Oct.
2. Gravenstein.....	October.
3. Hubbardston Nonsuch.....	Nov. to Feb.
4. R. I. Greening.....	Nov. to March.
5. Baldwin.....	Dec. to March.
6. Roxbury Russet.....	March to June.

The best four sweetings, perhaps, are,—

1. Large Early Bough.....	August.
2. Jersey Sweeting.....	Sept. and Oct.
3. Danvers Winter.....	Nov. to April.
4. Ladies' Sweeting.....	Jan. to May.

We observe that in the above lists the old St. Michael is omitted. When in perfection, this pear is scarcely excelled by any that grows; or, at any rate, by only three or four varieties. Of late years, we are told that it has succeeded quite well in many localities. In setting even one dozen of trees, we should certainly include the St. Michael,—known also as the White Doyenne, Virginian, Butter Pear, &c.

For the New England Farmer.

ILLINOIS FARM IMPLEMENTS.

MR. EDITOR:—A leader of the *New York Tribune* supposes a plow with other than a cast iron mould board, to be a curiosity now-a-days. Now without much humility, and as a corn grower of twelve years standing, in Suckerdorn, I am free to say that I have never seen a cast iron mould board plow in use in Illinois; yet we do some plowing here. I propose giving a list and description of the implements I have in use for working the soil.

I use, in the first place, the "Breaking Plow," drawn by four yoke of oxen and cutting a slice twenty inches wide and two deep, or an inch and a half if quite level. The plow is 40 inches on the bar, 34 on the edge of wing, is provided with rolling cutter, and for mould-board is provided with 4 rods placed one above the other at intervals of 3 to 4 inches, thus saving much friction and weight, breaking 2½ acres per day. Next in order is the cast steel plow, with wrought iron bar, and cast iron upright; the wing and mould-board of cast steel from ½ to ¾ of an inch thick, cutting a furrow 15 inches wide, and from 3 to 7 inches deep, as is required. The entire plow weighs 60 lbs., and can be held with ease by a boy ten years old. For a span of horses weighing 2200 or 2400 lbs., 3½ acres is a fair day's work. My harrow is an old-fashioned triangle frame with 19 teeth; a little behind the age.

For sowing small grain, I use a machine running on two wheels and drawn by one horse, sowing ten feet wide each passing and 20 acres per day. For marking up corn ground the first way I use a sled with 4 runners, 3 feet long 4 feet apart, and drawn by two horses; 30 acres is a day's work. Then with the "corn planter" drawn by a span of horses, with a boy to ride on the machine, and handle the tricker, and a hand to guide the team, 2 rods at a time are furrowed, crossed and covered, and 15 acres are planted per day.


The next is the "Cultivator" used when the corn is small; then the "Tending Plows" of cast steel, and "rights and lefts" which we run by pairs. They cut a ten inch furrow in width, are rigged with one handle each, and one horse attached to each plow, but the plows are not attached to each other at all, only the horses are attached to each other by a double rein, such as are used always in driving a span, which the plowman puts under one arm and over the other shoulder, while he holds one plow in each hand. One horse and plow are upon either side of the row of corn, it passing under the plowman's right arm, as he extends it to the opposite side of the row to hold the right hand plow. Thus 7 or 8 acres are plowed a day, (one row being plowed at each passing) and 45 acres to the hand for the season.

I have used the "Paire" or "Rights and Lefts" for four years, thereby doubling the amount of corn raised with the same labor, so far as tending is concerned.

HENRY W. MERRIAM.

Little Town, Tazewell Co., Ill. Feb., 28, 1854.

THE COUNTRY GENTLEMAN, Albany, N. Y. LUTHER TUCKER, Publisher. There is not, in our opinion, a more valuable agricultural journal in the country than the one with the title above. Its views are sound and clearly expressed. The paper

is made up by one who has a Printer's eye, and a Printer's . The type is clear, the paper good, and the whole managed with so much good taste and good nature, that it is a model for us all; and if this paragraph should cause a thousand persons to take it, pay for it and read it, we shall be glad.

EXTRACTS AND REPLIES.

CRANBERRIES.

In the March No., I observed an article on cranberry culture, and as I design going into the business to the extent of a few acres, I want to inquire of some of your numerous correspondents who may have had experience in the business, in regard to the liability of the plants being hove out of the ground by the action of frost, in what we call wet, cold, heavy land, and thus killed. As we have a good supply of this kind of land in Berkshire, it may be turned to good account if the vines will stand the frost.

WM. NOBLE, Jr.

REMARKS.—Some of our readers, we know, have had experience in this matter, and perhaps, will aid brother NOBLE in his operations.

PALMER WORMS.

MR. EDITOR:—Anticipating another visit from those destructive insects, called palmer worms, the present season, some of us have begun to tar our apple trees, and have caught a great many millers and grubs, a sample of which I send you. I suppose the millers to be the male, and the grubs the female, as by inspection you will find them to contain a large number of eggs; the tar should be applied every day, just before night, which can be done with little labor, with a paint brush, having the tar warm if the weather is cold. c. s. w.

Chester, N. H., April 10th, 1854.

REMARKS.—The insects had no form or comeliness left, when they reached us.

STEEP FOR SEED CORN.

In your next paper please give your opinion upon the subject of steeping seed corn; and what is the best substance for such a purpose; also, whether any of the concentrated manures have been profitably applied to potatoes. Being a young farmer I desire to obtain information on the above points.

Ludlow, Vt.

ORA J. TAYLOR.

REMARKS.—See article in another column, about seed corn. We can tell you nothing satisfactory about the potatoes.

USE OF SALERATUS, &c., IN BREAD-MAKING.

To D. F., *Canaan Four Corners, Columbia Co., N. Y.*—We should be pleased to see your essay on this subject, but could only extract briefly from it.

BUCKWHEAT AND OATS.

JOHN HAMMETT, *Chilmark, Mass.*—Buckwheat is the crop usually sowed for a green crop to turn under. A bushel of seed is sufficient for good rich land, where the seed is the desired crop. Taking that quantity as the standard, and on a rich soil, the poorer the land the more seed will be required.

BET, TURNIP AND CARROT SEED FOR AN ACRE.

A SUBSCRIBER, *Warren, Vt.*—Of beet seed, it will require between 3 and 4 pounds to sow an acre with a seed sower; of turnip seed, $\frac{1}{2}$ to 1 pound; and of carrot seed from 1 to 2 pounds.

PUMPKINS.

M. HINCKLEY, *Barnstable.*—Make your land as rich as you can—place the hills 8 feet apart, and before dropping the seed, scatter some fine manure over them; leave a dozen plants for the bugs, for awhile, then select one or two of the best for runners. After they have gone as far as you think a pumpkin vine ought to travel in a single season, pinch off the ends of some of them and see what the effect will be.

A BARREN PEAR TREE—POUDRETTE.

NEW SUBSCRIBER, *Ellet, Me.*—Can a fruit tree be compelled to bear fruit? The tree in question was grafted to the Pound pear, at the time being about two inches in diameter. I let it remain six years, and never received a pear from it, then cut the top off, and grafted it to the Bartlett pear, which was four years since, and still no pears yet. I thought I would let it alone this year; if it bore fruit, well, if not, I should remove it, root and branch. If there is any thing you can tell me to cause it to bear fruit you will oblige me much. The tree is thrifty, and of good size.

When should poudrette be applied to corn; in the hill at planting, or on the surface at the coming of the corn! and how much to a hill?

REMARKS.—If your pear tree does not blossom this spring and set the fruit, in June, say from the 10th to the 15th, with a sharp knife slit the outer bark down carefully, and remove it all from the first set of limbs to the ground, and next year your tree will probably fruit. Apply poudrette broadcast, or in the hill before planting—a gill or more to the hill.

STUFFING BIRDS.

E. N., Jr., *North Dighton.*—We have sent you, by mail, a copy of the monthly *Farmer*, for July, 1852, containing full directions how to stuff birds.

Mr. J. W. COLBURN, of Springfield, Vt., writes that he raised on his farm the past season $7\frac{1}{2}$ acre, of corn, which averages 105 bushels to the acre, weighing 56 lbs. per bushel, and the cobs 12 lbs.—In the spring of 1852 he applied 40 ox-cart loads of manure to each acre, and last spring 50 ox-cart loads more, making 90 loads to each acre in two years—each load containing 35 bushels, potato measure. The corn was planted on the 16th of May, with the corn-planter, dropping plaster and ashes with the seed, about 5 bushels to the acre. At the first hoeing, a single handful of ashes and plaster was applied to each hill, and after the second hoeing a table-spoonful of plaster alone.—Three stalks were left in each hill. For this crop, Mr. Colburn received the first premium, both from the Vermont State and Windsor County Societies.

IMPROVED HINGE HARROW.

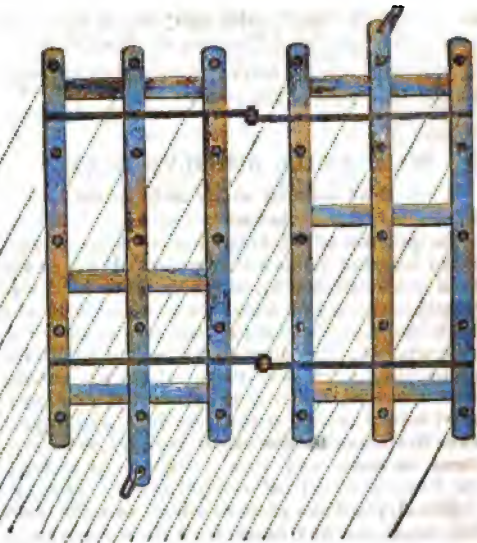
Among the various kinds of harrows in use, we are inclined to think that the one represented above, which we find illustrated in the Catalogue of Messrs. Ruggles, Nourse, Mason & Co., will be found to possess more advantages than any other.

This harrow is usually made to take a breadth of 5 feet. It is composed of two pieces of framework, connected to each other by iron hinges coming together like common barn-door hinges, and which, extending across the pieces widthwise, are bolted to each bar, thus greatly strengthening the harrow. The ends of the bars are secured from splitting by iron rivets. The harrow may be folded double, or separated into two parts for the convenience of transportation or other purpose. Either half may be lifted for any purpose while the implement is in motion; and the easy and independent play of the parts up and down upon the hinges, enables the instrument to adapt itself to the surface of the ground in all places, so that whether going through hollows, or over knolls and ridges, it is always at work, and every tooth has an operation upon the soil. There are thirty teeth in the harrow, and yet they stand equi-distant and wide apart each way, so that while from their number and arrangement the ground is worked fine, they are not liable to clog. This harrow is made heavy for rough land and the pulverizing of sod furrows, or light for grain and grass seed. It is a very light, pretty harrow for one horse, when made of bars 2½ inches square, with teeth of half-inch steel; and thus made, and carrying a breadth of five feet, one horse will harrow as much ground, in a day with it, as is usually accomplished by two horses. It is made to draw either end forward; and when the teeth become dull by working in one direction forward, the teeth may be hitched to the other end, and they are sharp again.

For the New England Farmer.

CATTLE OF NEW ENGLAND.

On the last page of an interesting paper on the climate of New England, from the pen of Hon. John C. Gray, President of Massachusetts Society for Promotion of Agriculture, we find the following sentence—"A race of cattle has grown up among us which, though a very moderate degree of attention has been paid to them on the whole, is highly distinguished by its valuable qualities in every essential particular; and although the importation of valuable foreign animals should by no means be discouraged, it is far from certain that the best mode of improving our domestic cattle is not by careful selections from our own stock." It is pleasing to find the views heretofore put forth by Pickering, Lowell and Colman, in relation to the cattle bred and born on the



rocky hills of New England, so fully indorsed by one so competent to judge. If we do not mistake, these are the sentiments of the reflecting yeomanry of the country. If this be so, let our motto be—improve the native breed.

March 4, 1854.

NORFOLK AGRICULTURAL SOCIETY.

We notice by the *Dedham Gazette*, that the Sixth Annual Meeting of this Society was holden at Dedham, on Wednesday, the 29th of March. Officers and a Board of Trustees were elected for the year:—

MARSHALL P. WILDER, *President.*

BENJAMIN V. FRENCH,	} <i>Vice Presidents.</i>
SAMUEL D. BRADFORD,	
CREEVER NEWHALL,	
JOHN GARDNER,	
RALPH SAWYER,	
CHARLES C. SEWALL,	

Hon. Thomas Motley, of Dedham, introduced the following motion which was unanimously adopted:—

That the thanks of this society be and are hereby presented to Hon. Marshall P. Wilder, for his very able and untiring exertions in the cause of Agriculture in general, and especially for his devotion to the best interests of this society from its commencement, and also for his consent to yield to us those acceptable services for another year.

On the adoption of the above vote Mr. Wilder arose, and in an eloquent and feeling manner, acknowledged the gratitude and happiness experienced, in finding that his services in behalf of the society and to the great cause of agriculture, had been appreciated and declared. He confessed that he had been a lover and devotee of the cause of agriculture from his earliest years, and that he had spent a large part of his life in its service, with no hope of reward beyond the general welfare, and the generous and kind appreciation of his friends and the community. He trusted that the society would continue to prosper, that its benefits to all classes of the community would be increased, and to that end his services, while living, should never be wanting.

The efforts of the Norfolk Society have been singularly successful—not lucky, there has been no luck about it, but this success has been the legitimate result of good management and hard work; controlling everything at the right moment, and leaving nothing to chance. With such men

as compose its officers, and many whom we recognize in the new list of Trustees, the Norfolk Society will make a broad mark not only upon the land, but on the minds of the people.

WILL ASHES DISSOLVE BONES.

A friend of ours, in whom we have entire confidence, informs us that seven years ago he fell into the practice of reducing bones by means of ashes, by a sort of fortunate blunder. Being at the head of a large family, in which fresh meat was largely consumed, he found that his Irish cook was in the habit of throwing all the bones out of the back window. This drew such a bevy of dogs, with voices, bass, tenor and treble, about the house, that it was impossible to sleep quietly. In order to withdraw temptation from the dogs, and to preserve the bones for the use of his land, to be prepared in some way then unknown, he ordered the bones to be carried and put into an old sugar hoghead, place in a grove at a little distance from the house, and the ashes from the kitchen to be thrown on them, the hoghead to be uncovered that the rain might fall into it. Whenever an offensive smell arose from the bones, which was only in dry times, he found that a little water thrown on prevented it. As soon as the first hoghead was full, another was placed by it and filled, and then another. His intention was to use the ashes and bones on Indian corn, supposing that by the next spring the bones would be somewhat softened so much so that they might be pounded to pieces with a sledge hammer on a flat stone. The hammer and stone were actually procured for the purpose. But no bones were found, except near the top of the hoghead last filled. Instead of the bones, were found soft saponaceous masses, retaining the form and size of the original bones, but none of their hardness. They were easily cut through with a shovel and mixed with the ashes; and when so mixed and applied to corn at the rate of half a pint to the hill, they proved an excellent manure of corn. The experiment has been repeated every year since with good effect, not only producing great crops of corn, but manifestly leaving the ground in good order for a succeeding crop, with but very little yard manure, no more than a quarter of what would be regarded as a fair dressing, say from three to four loads to the acre. The land is a light loam, and has been under the plow incessantly for more than twenty years, bearing for the last eight years hoed crops every year, generally corn and potatoes alternately, but some of the time corn two years in succession.—*Country Gentleman.*

FALL CARE AND FEEDING OF SHEEP.—Sheep should never be permitted to grow poor in the fall. Give them the best feed you can, and if consistent with your concerns, put them in the yard at night, if at all cold or stormy, and in the morning give them a little of the best hay you have, or a few oats, and after they have eaten turn them out again. Just remember at this season they need care and attention, and your own good judgment will suggest the manner in which it can be most properly bestowed.—*Germanstown Telegraph.*

Ladies' Department.

DOMESTIC RECIPES.

HONEY CAKE, No. 1.—Three-quarters of a pound of butter, three-quarters of a pound of sugar, six eggs, two pounds of flour, one table-spoonful of ground cinnamon, half a gill of cream, one quart of honey, one table spoonful of dissolved saleratus. Beat the butter and sugar to a cream; beat the eggs and stir in with the flour, cinnamon, cream and honey. Beat the whole for ten minutes, then stir in the saleratus. Line your pan with several thicknesses of paper, well buttered; pour in the mixture, and bake it in a slow oven.

HONEY CAKE, No. 2.—Half-a-pound of sugar, half-a-pound of butter, one pint of honey, one table spoonful of cinnamon, one teaspoonful of nutmeg, as much flour as will form a dough. Stir the butter and sugar together, add the nutmeg, cinnamon and honey, and enough flour to form a dough. Knead it well, roll it out in sheets, cut it in cakes with a cake-cutter or the rim of a tumbler, place them on tin, and bake them in a moderately hot oven. Before you set them in the oven, wash them over with a little honey and water mixed in equal quantities.—*National Cook Book.*

ADVERTISING DEPARTMENT.

A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....50
The above rates will be charged for all advertisements, whether longer or shorter.

Fowls and Eggs.



The subscriber offers for sale during the coming season, Brahma Poultry Fowls and Eggs. Fowls all carefully bred from as pure blooded stock as can be found in the United States. All at the shortest notice, and carefully cooped and sent to any part of the United States, or the Canadas. Price is \$2.00 per doz.
Address post paid, April 1, 1854. C. P. ABBOTT, Montpelier, Vt.

Wanted,

AN APPRENTICE, about 16 years of age, to learn the Carriage-painting and Harness-making business. Also, for sale, a large lot of Harnesses, covered and open wagons, 1 slide-top Buggy, 1 two-wheeled Chaise, second-hand Carryalls and Wagons, and 1 good Sulky.

HOLLIS HASTINGS.

Framingham, Mass., March 25, 1854.

Suffolk Hogs.

2 FULL Blood Suffolk Boars.

1 1/2 " " "

1 1/2 " " "

5 Breeding Sows of from 1/2 to 3/4 Blood.

For sale by Andover, Mass., April, 6, 1854.

C. G. McNEIL.

327

Suffolk Swine.



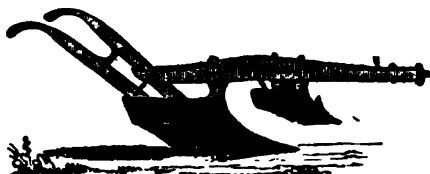
The subscriber offers for sale, on reasonable terms, several full blood Suffolk Sows, of different ages, two Boars, and a down Pig. Some of these animals are of the best quality for symmetry and beauty, and are the descendants of swine which were imported from England last spring.

HENRY M. CLARK, Linden Place, Waltham.

March 18, 1854

17

THE BOSTON AND WORCESTER EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility.

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop.

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument, and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary.

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

Super-Phosphate of Lime.

THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 160 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DEVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

Choice Fowls.



For sale, one or two pair of fowls, of each of the following profile and beautiful breeds: Gold and Silver Pheasants, Spangled Pouter, Bolton Grays, Dutch every day Layers, Black Spanish and Black Bantam; also Java Pea Fowls, and splendid Turkeys of the Great Norfolk or Virginia breed. Also for sale, Eggs for Hatching, from the White Shanghae, and some of the other breeds, which are in separate enclosures, to ensure the purity of the eggs. For further particulars address

H. H. LITTLE, East Marshfield,
Plymouth Co., Mass.
4th May

March 11, 1854.

Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime.—"DeBurg's No. 1."

Poudrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

5 Commercial, corner of Chatham Street, Boston.
Feb. 18, 1854.

Walnut Grove Nursery.

NEWTON CENTRE, MASS.



The subscribers have on hand as usual a large stock of Fruit and other Trees, which they are prepared to sell at very reasonable rates. Among others, Apple, Pear, Cherry, Plum, Peach, Grape Vines, Raspberries, Blackberries, &c. &c. Also, Ornamental Trees, Shrubs, Roses, Herbaceous Roots, Creepers, &c. &c.

A splendid lot of Sugar Maple, 8 to 10 feet high, \$30 per hundred.

6000 Apple stocks, \$10 per thousand.

5000 Buckthorn, 2 to 3 years, \$15 to \$20 per thousand.

Large and fine Norway Spruce; Arbor Vitae for hedges and standards.

Fine lot Red Dutch Currants, \$5 per hundred.

Seeds will be furnished, if ordered early.

Other things too numerous to mention. All orders will be promptly attended to, and the trees securely packed, when desired, for which an extra charge will be made. Catalogues sent to post-paid applicants. All packages delivered in Boston free of expense.

JAMES HYDE & SON.

Newton Centre, March 18, 1854.

w't

Fruit and Ornamental Trees.



The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines, &c. 1000 Buckthorn and Arbor Vitae for Hedges.

S. & G. HYDE

Newton Corner, March 18, 1854.

w't

R. M. COPELAND,

Landscape and Ornamental Gardener,

WILL furnish plans of Cemeteries, Public Squares, Pleasure Grounds, Gardens and Farms, with directions for their laying out and improvement, also for the construction of every species of buildings connected with Horticulture or Agriculture, Barns, Green-Houses, Conservatories, Rustic Arbors, &c. whether for use or ornament.

He will furnish lists of the most approved and desirable ornamental and useful Trees, Shrubs, and Flowers; also, plans and estimates for every species of underdrainage, and will contract for and superintend the removal of trees of every size under fifty feet, at all seasons of the year.

Refers to—Hon. M. P. WILDER, Dorchester.

" S. H. WALLEY, Roxbury.

" SAMUEL WALKER, Roxbury.

" J. W. EDMONDS, Newton Centre.

Prof. H. W. LONGFELLOW, Cambridge.

J. W. PROCTOR, Danvers.

SIMON BROWN, Ed. of N. E. Farmer.

R. M. C. may be addressed Box 326 Boston Post Office, and No. 3 Dudley Block, Roxbury.

March 25, 1854.

cow542

The People's Patent Office.

THIS well known establishment is still carried on under the personal superintendence of its founder, ALFRED E. BEACH, by whom all the necessary drawings, specifications, and documents, for Patents, Caveats, &c., are prepared with the utmost fidelity and dispatch.

Persons wishing for information or advice relative to Patents or Inventions, may at all times consult the undersigned without charge, either personally at his office, or by letter. To those living at a distance, he would state, that all the needful steps necessary to secure a Patent, can be arranged by letter, just as well as if the party were present, and the expense of a journey be thus saved. All consultations strictly private and confidential. When parties wish to be informed as to the probability of being enabled to obtain Patents, it will be necessary for them to forward by mail a rough outline sketch and description of the invention. No fee or charge is made for such examinations.

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Models from a distance may be sent by express or otherwise.

For further information apply to or address, post paid,

ALFRED E. BEACH,

Solicitor of American and Foreign Patents,

People's Patent Office, 86 Nassau Street, New York.

Feb. 18, 1854.

1w*May

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

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The Horse Hoe.....	240
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To Farmers.

THE subscriber is now prepared to receive orders for the Improved Poudrette. It has been manufactured under the advice of some of the best agricultural chemists in the Country, and is now commended to the public as the most certain and cheap Fertilizer that can be obtained, acting favorably on all crops, and on all soils. Six different articles are used in its composition, which combined make it a perfect manure for every crop raised in New England. It is finely adapted to corn, and the present and prospective high prices of this indispensable crop, ought to induce all farmers to increase the quantity planted, which they can do profitably by using the Improved Poudrette.

Prof. Mapes says of it, "no farmer using it once, will be willing ever to dispense with it." I raised corn with it the past season at a cost of less than 40 cts. per bushel. Price in Providence \$1.50 per bbl., cash. It can be obtained of Messrs. PARKER & WHITE, 60 & 62 Blackstone Street, Boston.

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Smc

Feb. 25, 1854.

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Feb. 18, 1854.

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Orders promptly attended to.
April 9, 1853.

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Is published on the first of every month, by JOHN RAYNOLD and JORI NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, Associate

HENRY F. FRENCH, Editors.

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Feb. 4, 1854.

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Feb. 4, 1854.

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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, JUNE, 1854.

NO. 6.

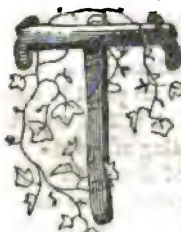
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SIMON BROWN, Editor.

FREDK HOLBROOK, } ASSOCIATE
HENRY F. FRENCH } EDITORS.

CALENDAR FOR JUNE.

"A thousand beauties lost to vulgar eyes,
Now to the scrutinizing search are spread."



THE "leafy month of JUNE," as the poet COLERIDGE calls it, never looked lovelier—never was more lovely—than it is this year. April was a month of contradiction; instead of shedding gentle tears, it blew fierce storms, and froze the vapor upon the trees which had been driven from the "vexed Bermoothes," or the angry Atlantic waves. Buds and flowers refused to come, and the birds fled to the shelter of forests, or were buried with snows and perished in the fields. But Nature will have her ways, and she has fast made up in the richness and luxuriance of the latter May, her sad deficiencies in April. Sunshine and showers have been frequent in May, and rapid and rich has been the growth of vegetation, under their genial influences.

"The quailen is lifted with blossom of snow,
And is throwing its perfume around it;
The wryneck replies to the cuckoo's halloo,
For joy that again she has found it;
The robin's red breast
Peeps over her nest,
In the midst of the crab-blossoms blushing;
And the call of the pheasant
Is frequent and pleasant,
When all other calls are hushing."

If all were as observing of the beauties of nature as was HOWITT, the writer of these charming descriptive lines, a thousand instructive books would soon take the place of those of the imagination, and a poor sickly imagination at that.

JUNE, this year, is luxuriant almost beyond precedent; the abundant May rains have been warmed by the sun, and have given the grass a growth and a color which promise well for the hay harvest.

The apple trees, now, this 18th day of May, are

in full blossom, and out of *fifty-two* years, from 1798 to 1849, we find but some half dozen years when they bloomed earlier. Indeed, vegetation has come forward with a Canadian pace during the last six or seven days.

Frost remained in the ground unusually late, so that the redundant water could not pass freely off, and the frequent and heavy rains in May have prevented the plowing and preparation of many acres of rather low and springy lands. Grass and grain look well; for them the cool weather has been favorable, so that, altogether, there is no cause for despondency; all will be right to those who unite cheerful hearts with a proper degree of skill. By the 5th of June, a wider breadth of land will be devoted to corn than was, probably, ever given to the corn crop in New England before. People have also made liberal preparation for the root crops, so that we trust a larger portion of corn than ever may be spared for the hungry across the seas.

JUNE is the most active month for vegetation; whatever gets a good start in this month will be pretty likely to come to perfection; "the farmer must therefore be stirring with the lark, and watch the whole circle of his fields." Great loss and vexation are occasioned by seemingly slight neglects now. If weeds, for instance, once get above the plants you are cultivating, the injury these occasion by retarding their growth is not the only one, for in extracting them they disturb and often break their roots, and thus destroy them.

MILLET.—We still advise the growing this crop, both for summer and winter fodder. Sow by the middle of the month, eight to twelve quarts of seed per acre.

THE GARDEN will require daily care.

HOING must not be neglected, in the hot, sunny days.

CATERPILLARS.—These insects have appeared in

great numbers—make jelly of them as fast as possible.

YOUNG TREES must not be allowed to retain much fruit the first year or two of bearing.

STRIPED BUGS.—Scatter a little yellow snuff over the plants when the dew is on them—not too much, or it will destroy the plants.

THE CURCULIO.—Sift lime dust or ashes over the fruit when it is wet.

MULCH about young trees, shrubs, currants, gooseberries, or anything else you wish to keep moist—this and deep plowing are the antidotes for drought. These are a part of the geonics of the month, and if neglected now, you will scarcely catch up with them this year.

HYBRIDIZING.

The doctrine of the cross fertilization of vegetables, or the "mixing," as it is termed, of certain varieties, is now too well understood to admit of a question in any mind. We hear farmers frequently contending that potatoes of different kinds will "mix" the first season they are grown in the immediate vicinity of each other. Thus the white and colored varieties, although previously grown at a distance from each other, if planted in alternate rows, or hills, will produce a speckled progeny. But this is not the case. Crossing, in the vegetable as in the animal kingdom, can only be brought about in the natural way—i. e., by cross impregnation or fertilization. All plants and vegetables of the same genus, whose period of blossoming is identic, are susceptible of hybridization in intermixture, by means, and through the agency of blossoms, and in no other way. The pistils of the blossoms of one variety receive the fertilizing dust, or fecundating pollen, from the stamens of the other, and the seed necessarily contains the germ of the variety with which it has become impregnated by the intermixture.

In this way, a good kind of melon, squash, pumpkin or cucumber, often has its valuable distinctive characteristics merged in those of some less desirable kind, and *vice versa*. Indian corn presents many varieties, and intermixtures are consequently frequent, here as in the culmiferous class. The farmer should understand these things, in order to proceed profitably with his labors.

ACKNOWLEDGMENTS.—Our acknowledgments are due the Commissioner of Patents, and to the Hon. TAPPAN WENTWORTH, at Washington, for sundry parcels of seeds; to HENRY CLARK, Esq., of Poultney, Vt., for a copy of the Constitution, By-Laws, list of officers and premiums of the Rutland County, Vt., Agricultural Society, for 1854, and CHARLES W. STEWART, Esq., of Washington, for a copy of the Census Returns of 1850.

EMIGRANT AID COMPANY.

An act of incorporation for a company bearing this title, was granted at the recent session of our State Legislature. At a meeting of the persons named in the act, held on Friday, as we learn from the *Traveller*, a list of by-laws was reported, the more important of which provide for an annual meeting in Boston on the first Wednesday in June, for the choice of officers, and that the Board of Directors shall consist of not less than five nor more than fifteen members. A report was submitted detailing the proposed plan of operation, which is to aid emigrants to homes in the West, and by so doing secure the Western territories to freedom. The capital is not to exceed \$5,000,000, and in no single case assessments greater than 10 per cent. are to be called for. The corporators believe that if the Company be organized at once, as soon as the subscription to the stock amounts to \$1,000,000, the annual income to be derived from that amount, and the subsequent subscriptions may be so appropriated as to render the most essential service to the emigrant; to plant a free State in Kansas; to the lasting advantage of the Company, and to return a handsome profit to the stockholders on their investment. The report closed with recommending a meeting of the stockholders on the first Wednesday of June, for permanent organization, and arrangements were made to have subscription books for the stock immediately opened.

For the New England Farmer.

POTATOES—WHEAT.

GENT. :—Allow me to say to my farming friends, a little spring wheat is worth trying for *this year*, and when September comes, two or three acres of winter wheat may do them infinite benefit another year. Three acres to each farm will bread the farmers of New England.

In the various kinds of long potatoes, cut off the end of *small eyes*; plant for the table and the market, the *body* of the potato. Small eyes and small potatoes must give a small yield, and small potatoes, to be consistent with nature. Please try the experiment. Do you plant the *tips* of your corn? Yours truly, H. P.

New York, May 7th, 1854.

TO PRESERVE FENCE POSTS.—In so important a branch of farming, we endeavor to give everything that may have a beneficial tendency. A writer, E. H., in the *Rural New-Yorker*, speaks confidently of the following plan of preserving posts :—"I prepare my posts for setting and then let them season. I then take coal tar, and paint them with three coats of the same. I paint the post from about four inches above where they set in the ground to the bottom, and the end that sets in the ground also,—putting the paint on hot. A gentleman informed me that he had known a fence set in this way, that had stood forty years, and was as permanent then as at first. I think this way is easier and cheaper than lime, and more durable."

For the New England Farmer.

THE BIRDS OF NEW ENGLAND, THEIR PAST AND PRESENT HISTORY....NO. 10.

BY S. P. FOWLER.

The Indigo Bird has not, like many others of our feathered tribes, attracted general notice, at least in the eastern part of Massachusetts. It is a bird more particularly found in gardens and orchards, during the breeding season, where, from the top of an old pear tree, the mate will enliven and animate by its song, the landscape glowing with beauty and fragrance under the rays of a noon-day's sun in June. Mr. Nuttall says, in the village of Cambridge, I have seen one of these azure, almost celestial musicians, regularly chant to the inmates of a tall dwelling-house from the summit of the chimney, or the point of a forked lightning rod. This beautiful bird is, with us, only a summer resident. It passes the winter in tropical America, and is first seen in Massachusetts about the 20th of May. The female seldom attracts much notice in her humble dress, and is not often seen. She constructs her nest of grass and leaves, and places it in a low bush. There are singular discrepancies amongst ornithologists, in regard to the color and markings of the eggs of the Indigo Bird. Mr. Wilson remarks, the eggs, generally five, are blue, with a blotch of purple at the end.

Mr. Audubon, in his octavo edition of 1841, says the female lays from four to six eggs, which are blue, with a spot of purple at the large end. In a note sent to Mr. Audubon by Doctor Brewer, when speaking of the Indigo Bird, the doctor says the eggs, four in number, are eleven-sixteenths of an inch in length, seven-sixteenths in breadth, and of a uniform white color, without the slightest blotch or mark. He continues, I have never met with an egg having this purple blotch at the larger end, which you [Audubon] and Wilson mention as existing there, although my observations are taken from the contents of more than eight nests. By way of reply to Dr. Brewer, Mr. Audubon says, I have before me at this moment, an egg of the Indigo Bird, procured by myself, which has several dots toward the larger end, and of which the general color is not pure white, but as described by Nuttall, greenish white, or rather, as I would call it, lightish blue. Mr. Nuttall says, the eggs of the Indigo Bird are about five, and are greenish white, and are without spots. Doct. DeKay, in his history of the birds of New York, as given to us in the State Survey, says, when describing the Indigo bird, their nests are placed on some low bush with white immaculate eggs.

Mr. Peabody, in his report on the ornithology of Massachusetts, notices the discrepancies in regard to color and markings of the eggs of the Indigo Bird, and thinks the subject is greatly in want of attention.

Mr. Giraud, in his *Birds of Long Island*, says, the eggs of the Indigo Bird are usually five in number, and of a bluish color.

Who can decide when distinguished ornithologists disagree! We have not the vanity to suppose that anything we may offer, will settle this question, but our own observations upon this subject,—with the eggs of the Indigo Bird on a table before us, are these. They are of a greenish,

or as most persons would say a blueish white, without any spot or blotch whatever.

The food of the Indigo Bird consists principally of insects, worms, caterpillars and grasshoppers. They likewise feed upon various kinds of seeds, and it is said they can be reared in a cage on the usual diet of the Canary. The male bird may be known by its rich blue livery, tinged with verdigris green; and the quills and tail feathers dusky, edged with greenish blue. The female is yellowish-brown, above, paler beneath. The beautiful and cheerful songster known to our ornithologists as the Purple Finch or American Linnet, is now frequently seen with the Indigo Bird, in our orchards and gardens. This is one of the birds to which we might refer, as having within a few years, sought the habitations of men. We can distinctly remember the time, when this bird was not to be found in the vicinity in which we reside, except in open pine woods or dense cedar pastures. The Purple Finch is a very hardy bird, having been found by Doct. Richardson on the banks of the Saskatchewan river. This bird leaves the eastern part of Massachusetts for the South, from the first to the middle of October. We noticed this autumn, many lingering after this period and feeding upon the berries of the honey-suckle. In spring they arrive with us early in May, and are seen feeding upon the expanding flower-buds of the elm, and are conspicuous from their beautiful appearance, and fine notes, resembling those of the Canary. The pine forests at the North appear to be the home of this Finch, and this partiality for evergreen trees continues, when it visits our gardens and seeks our protection. It may be that the increased cultivation of evergreens within a few years, in our gardens, have served to attract them from their former haunts. It is somewhat singular, from all we can learn, that Wilson, Audubon or Nuttall, do not appear to have ever seen the Purple Finch's eggs or nest. Mr. Nuttall says, "although several pair of these birds usually pass the summer in this vicinity, [Cambridge] in spite of the utmost diligence, continued for three years, I have never yet been able to discover their nests, although I have seen the female collecting wool from a fence for the purpose. General Dearborn, however, informed me that he had seen the nest of this species [in July, 1830] containing young, fixed on the low, horizontal branch of a balsam fir, contiguous to a house, and even near a path. The outside appeared to be lined with lichens, and the whole was neatly and compactly formed. They seem indeed much attached to evergreens, frequenting their shade, during the heat of the day. They sing at various times, but most vigorously in the morning and evening."

Bonaparte remarks that much confusion exists in the works of naturalists, respecting those finches and bullfinches that are tinged with red. And Swainson is almost persuaded that there are two distinct species of these Purple Finches, which not only Wilson, but all modern ornithologists of America have confounded under the same name.

The male American Linnet or Purple Finch may be known by the deep crimson on the head and chin, with the breast and rump paler, inclining to roseaceous.

Several pairs of these birds have built their nests in our neighborhood, the past season. One was

taken from the branch of a pear tree, about fifteen feet from the ground. The bottom and outside of the nest was composed of small twigs, taken from the larch and honeysuckle, of three or four inches in length. These small portions of the end of the branches were gathered by the female bird, by breaking them off with her bill, of a suitable length to form the bottom and sides of her nest. Upon this loose and open frame work, was laid a close and compact nest, made from small fibrous roots and strips of bark taken from a grape vine—The inside was well lined with pieces of thread, wool and hair, and contained four bright emerald green eggs, marked at the larger end, with small, black, unequal dots and blotches of dark purple. The internal width of the nest was two inches and a half, depth one inch and a half.

Mr. Audubon, in the 3d vol. of his "Birds of America," New York octavo edition of 1841, page 172, makes mention of receiving a communication from a friend well known as a distinguished Ornithologist, upon the habits of the Purple Finch.

In this communication to Mr. Audubon he says, "I have had the good fortune to meet with its nest this season. Mr. Cabot found another, and is probably the first naturalist who has done so. The nest which I found, was built in a cedar tree, at the distance of five feet from the ground. The tree stood by itself in a small pasture, which was sparingly covered with half-grown cedars. The nest itself was rudely constructed; it was composed externally of coarse grass and weeds, lined with fine roots of the same, and little care seemed to have been bestowed on its completion. The diameter of the exterior was *nine inches*, the brim *three inches*, the depth *one inch*, the external depth *two inches*, giving it thus a shallow or flattish appearance. The eggs, four in number, were of a bright emerald green." It is evident that Mr. Audubon's Boston friend has made a mistake, in the measurement of the nest of the Purple Finch, and in the description of its eggs, or what is more probable, the errors have occurred by the carelessness of the printer. From a conversation we once had with Mr. Audubon, we are inclined to believe that many errors exist in the writings of our Ornithologists on the subjects of nests and eggs of our birds.

The claims of American Linnet or Purple Finch, to the protection of the horticulturist, we will now consider—and we are sorry here to be compelled to observe, that this beautiful and interesting stranger, upon a more intimate acquaintance, indulges in occasional habits that are calculated to provoke the cultivator of fruit, and to render him obnoxious. We here allude to the mischief occasioned by these birds in spring, by eating the expanding buds of fruit trees. But this habit of the Finches is, so far as we can learn, as we have before noticed, only occasional. The buds of the elm, being more sweet and mucilaginous, are preferred, and constitute their principal food in spring. How extensive the injury sometimes produced by these birds may have been, we do not know, but we presume it is not great. We have never heard any complaint of this sort, from cultivators in this vicinity. Their food, in summer, consists principally of insects, and in Autumn, when these fail, they subsist on juicy berries, as those of the honeysuckle. May we not claim for this fine bird the protection of horticulturists? Those persons, who

derive pleasure in the cultivation of extensive gardens, and love and seek the companionship of birds, may do much to allure them from their woody haunts, to the cultivated grounds and abodes of men. This we may effect by the introduction and cultivation of the different varieties of forest and ornamental trees and shrubs, in our grounds, particularly evergreens. There is a constant and natural tendency in some of our birds, to become attached to peculiar kinds of trees and shrubs, usually found in the woods, in consequence of their affording them food and shelter, or in being those usually selected, in which to build their nests, and rear their young. When those favorite trees of particular birds are removed to our cultivated grounds, they are not unfrequently followed by the feathered tribes. In this connection we would notice, at long intervals, the visits to our gardens, of that most interesting bird, the Wood Thrush. But we can hardly suppose that this eminent songster of the wood, with all his shyness and love of the deep forest shade, will ever become an inmate of our gardens. And for the purpose of directing the attention of farmers to this bird, who never interferes with their crops, we will quote the description given by Mr. Audubon of its note.

"The song of the Wood Thrush, although composed of but few notes, is so powerful, distinct, clear and mellow, that it is impossible for any person to hear it, without being struck by the effect which it produces on the mind. How often, as the first glimpses of morning gleamed doubtfully amongst the dusky masses of the forest trees, has there come upon my ear, thrilling along the sensitive cords which connect that organ with the heart, the delightful music of this harbinger of day! The musical powers of this hermit of the woods must be heard to be fully appreciated and enjoyed."

There is a more common species of Thrush found in our woods, which is sometimes mistaken for the Wood Thrush. This bird is Wilson's Thrush or Veery. Its song, although resembling that of the Wood Thrush, is less powerful, but is nevertheless extremely pleasing. Wilson's Thrush, like its near neighbor, the Cat Bird, is frequently in the habit of leaving its haunts in the woods, to take up its summer residence in our gardens, providing it can be accommodated with shelter and shade, wherein to conceal itself. The plaintive note of this Thrush is sometimes heard in a summer evening, after the close of day, and from this pleasing habit of serenading, it has been called the Nightingale. The food of this species, consist of various kinds of insects and worms.

We have been sorry to notice this spring (April 25, since the above article was written) the Purple Finch feeding upon the flower buds of the pear tree, after the buds of the Elm had expanded into flowers.

S. P. F.

Danversport, Dec. 27, 1850.

REMARKS.—This letter closes the pleasant and instructive series upon the "past and present history of the Birds of New England." They have gratified a large class of our readers, those who love the ways of nature, and have been extensively circulated in other journals. Mr. FOWLER does not love nature by halves; the plants and flowers have their attractions for him, too,—and although

immersed in business, he is still the ardent lover and student of the beautiful and wonderful forms and changes about him. He knows that

"There's beauty all around our paths, if but our watchful eyes
Can trace it midst familiar things, and through their lowly guise."

We hope his pen will not be idle,—but that through it he will continue to speak to us, until our appreciation of the beautiful is as comprehensive as his own.

POULTRY AND EGGS.

Few persons, we apprehend, have any correct idea of the magnitude of trade, both at home and abroad, in poultry and eggs. Having recently had our attention directed to a work embodying some interesting statistics on the subject, we propose placing them before the reader. The amount of sales of poultry at the Quincy market, Boston, in the year 1848, was six hundred and seventy-four thousand four hundred and twenty-three dollars, while for the city of Boston, they exceeded four millions. The number of eggs sold in Quincy market was 1,129,735, the price paid for them being about \$203,352, or an average of 18 cts. per dozen. The sales in the whole city, it is supposed, fell little short of \$1,000,000. The daily average consumption of eggs at three of the hotels, in that year, was 200.

The city of New York, however, it is estimated, expends a million and a half of dollars yearly, in the purchase of eggs. Probably the amount in 1853 was much larger, as the above estimate was made in 1848. One single dealer in Philadelphia sends to this city daily, one hundred barrels of this commodity.

Ireland and France are great egg-exporting countries. We have not the most recent statistics, but they are of sufficiently late date to approximate to the present condition of the trade. M'Culloch says that the amount paid yearly by England to Ireland for eggs and poultry is from £200,000 to £300,000. The yearly value of eggs alone exported from Ireland to Great Britain exceeds £100,000. The number is probably 70,000,000 and 80,000,000. The British census for 1841 gave an *ad valorem* estimate of the poultry stock in Ireland, in which each fowl was valued at only sixpence sterling. According to this estimate, it showed that in the province of Leinster the stock of poultry amounted to £56,243; in Connaught, to £35,216; in Munster, to £62,830, and in Ulster, to £47,883; making a total of £202,172. But even at the low average named, the amount probably much exceeds this, as the people supposed the inquiry was made to obtain the basis of some new tax, and reported the number as being less than it really was.

The number of boxes of eggs shipped by the city of Dublin steam packet company's vessels to London during the year 1844-5 was 8,874. A box of the usual dimensions contains 13,000 eggs, but occasionally larger ones are used, capable of containing four times that number; so that about 23,565,500 are annually shipped from Dublin to London. To Liverpool, in the same year, in the same company's vessels, were shipped 5,135 boxes containing 25,565 eggs: giving a total export from Dublin to two ports of England of 48,539,900, valued at, £122,500. Since then, however, the trade has enormously increased.

In 1840 Great Britain imported from France and Belgium 96,000,000 of eggs, the duty upon which (one penny per dozen) amounted to £34,000. Nine-tenths of the foreign eggs imported into Great Britain are from France. The importation thence in 1842 was 89,548,741; in 1843, 70,415,831; and in 1844, 67,487,920. The yearly importation exceeds 80,000,000. The consumption of eggs in Paris is estimated at upwards of one hundred millions yearly. Supposing a fowl to produce one hundred and twenty eggs annually—which is perhaps a fair average—the reader may imagine the immense stock of poultry that must be kept in France. Any one who has travelled in that country is aware that they are reared in vast numbers, they being the most profitable stock on the many small farms owned or tenanted by the French peasantry.

The late poultry shows have tended to awaken new interest in the breeding and rearing of poultry by our own farmers, especially those whose land is situated near large cities, or where there are means of rapid transport to such cities. Though we are far from believing all the stories which interested parties, or amateur poultry keepers put forth, there can be no question that, with economical management, the poultry-yard becomes a source of large profit, as it is of unabated interest. On this subject, however, others are far more competent to speak than we are. But we are glad when a new impulse is given to the rearing of any domestic stock, and though the present movement in that direction looks a little too much to extravagance in size, or peculiarity of breed, its more mature result will be beneficial to the farmer, and through him to the consumer.—*New York Commercial Advertiser*.

For the *New England Farmer*.

HEN MANURE.

MR. EDITOR:—Having a quantity of hen manure on hand, and wishing to know how to use it to the best advantage, I take the liberty to inquire of you, or some of your correspondents. How should it be prepared, and how, and when applied? On what crops is it most beneficial? What is its value as compared with stable manure? Will it kill corn if applied in the hill at planting?

E. Raymond, Me.

S. TENNY.

REMARKS.—A neighbor of ours, who keeps some one or two hundred fowls, finds an important item of profit in the home-made guano which he is enabled to manufacture from the droppings of the roosts. These are carefully covered with sand, loam, or old manure, thoroughly mingled in the spring, and a single handful applied to the hill. In this way a large cart full of about 40 bushels, will manure an acre. He finds it about as active as the Peruvian guano.

"BLIND TESTER" in horses, if let alone, cause the animal to go blind. Hence the name. They should be broken out as soon as discovered. One hand should hold the animal's jaws apart, while another with a nail-punch, or something of the kind, and a hammer, accomplishes the work.—*Ibid.*

For the New England Farmer.

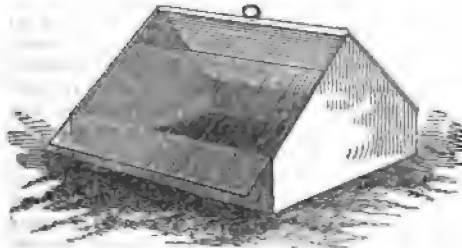
BEST APPLES.

MR. EDITOR:—The best varieties of fall and winter apples which I have cultivated for the market, are the Baldwin, Hubbardston Roxbury Russet, R. I. Greening, Seaver Sweet, Pound Sweet, and Green Sweet. Other varieties I have which I think should be ranked among the best of fall and winter apples, Hunt or English Russet, (the qualities of which the editor of the *Farmer*, can better describe,) Red Russet, Lyscomb, Red Favorite and Thompson apple. Russets require strong and moist soil. For early apples, Williams Sweet Bough, (for which I received \$60 for 26 bushels) the past season, and Porter. I have 15 or 20 of other varieties, some of them seedlings which I am cultivating in order to test their qualities and productiveness, before recommending them for propagation.

N. P. MORRISON.

Somerville, 1854.

A PLANT PROTECTOR.



The cut above represents a cover made of tin and glass, which is portable and convenient for the protection of young plants, such as squashes, melons, cucumbers, tomatoes, &c., and will prove as effectual against frost as against bugs. The glass may be easily raised in the grooves so as to admit the air, which, when closed, admits the heat, and light, but excludes the bugs.

The description below and one of the protectors, from which the cut was drawn, were furnished by friend FOWLER, of Danversport. He says—

Feeling the want, several years since, of something to protect and bring forward early and tender plants in our variable climate, I was led to construct a Hand Glass, that would combine cheapness with utility. One of these contrivances for the protection of plants or flowers in a garden, I now send you for examination. The English Hand Glasses are made, by placing in an iron or zinc frame, small pieces of glass, fastened together by narrow strips of lead. To make or repair these covers, much of the glass is required to be cut to conform to the frame. The difficulty in repairing the broken glass, together with their expense, has probably prevented the more frequent use of the Hand Glass in garden operations in New England. The one I send you to-day, as you will perceive, will require no cutting of the glass, the frame being made to correspond to the size of the pane. This being window glass, when accidentally broken, can easily be replaced. Any tin plate worker can make these glass covers from sheets of tin, of the size you desire, and they can be furnished at a

comparatively small expense. They should be made in such a manner that the glass will slip easily up or down, when it becomes necessary to give the plants air. To protect the frames from weather they should be well painted.

S. P. FOWLER.

Danversport, March 13, 1854.

For the New England Farmer.

LIFE OF RICHARD BAGG, Jr.

BY J. N. BAGGE.

MR. EDITOR:—I know not how to render Agriculture a more essential service, than by sketching the life of one of the most noted farmers of Hampden County. Although his namesake and fellow-townsmen, there was no consanguinity between us, consequently no one can accuse me of partiality.

Besides, I lay claim to advantages, in treating of his character, possessed by few others: Joined to a general neighborhood acquaintance, may be added, that of pupil and member of his family. Once, he was my teacher, and thrice my employer. I thus had facilities for seeing much of him in private life, and knowing some of his virtues. The subject of this article was born in 1812, and died in 1852, in West Springfield, his native town. His parents, who are still living, are farmers of the old school, and are in good circumstances.

The boyhood of our subject was remarkable for an activity and intelligence beyond his years. His promptitude and youthful manliness, made him the pride of his parents and the villagers. His was no mediocrity of attainment. He was first and foremost, both in the school-room and play-ground. He was a leader rather than a follower. He was bold, without being impudent,—punctilious without being mean, and shrewd without being cunning and treacherous.

His love of books and study were very great. Everything within his reach was read with astonishing avidity. In those days, one or more terms at some incorporated academy were considered necessary, to give character and finish to a young man's education. Young Richard was accordingly sent to Monson. Here he made great proficiency and rapidly fitted himself for college. But now a new difficulty obstructs his path. Ill health, brought on by close application to study, prostrates his corporal system, and he comes home, in the opinion of his friends, to die with consumption. But he would not be idle. Activity, which had always characterized him, was his ruling passion now. He went to work in his father's garden. He extirpated every weed, and made great exertions to augment the growing corps. He procured glass frames and made hot-beds, (the first that the writer ever saw,) till his father's garden glittered like a crystal palace.

His mysterious movements attract public attention, and the neighbors stop and examine his works, and ask him questions. But he was a man who kept his own counsel. His replies were always terse, sensible and cautious. No unguarded answer escapes his lips. He communicates nothing important to be reserved, and reserves nothing important to be known. His health begins to improve under a rigid system of diet and exercise, and he assists his father in the lighter duties of the farm. He is entrusted with the sale

of the farm produce. He used to say that the first time he went to market, he drove his father's oxen and a load of pumpkins, the proceeds of which amounted to ten dollars. His success encouraged him. The demand for farm produce increases, and home industry is inadequate for the supply. He begins to speculate and buy of others. Winter comes on, but he cannot be idle, and he takes the school of a neighboring village.

Here he matures his plans for the enlargement of business in the coming spring. He hires land and sows unsparingly and skilfully. He is the only man of his trade in the community, and he controls the market. The families of the wealthy are pleased with the urbanity of the young farmer, and ask him to call often. Success attends him. As fast as his means will allow, he increases operations. He hires men and buys tools and teams, and adds field to field.

In 15 years from the commencement of his Agricultural operations, he became the largest gardener in the County, if not in the State. He had about 40 acres under garden cultivation, and some of it produced 2 and 3 crops per annum. Of Asparagus and Onions he had several acres each. He hired a great many men, and has been known to employ in the busiest season of the year 60 persons. It was instructive to pass through his grounds, which were always accessible, and witness the clean and careful culture and the skilful blending of different crops, so arranged that when one was removed, another would immediately fill the place. He undertook the culture of one piece of land, so barren and sandy, that its improvement seemed utterly hopeless. He carted on large quantities of muck, ashes and manure,—he brought leaves and mould from the woods,—he plowed in green crops and used guano, until, literally, he made "the desert to rejoice and the wilderness to bud and blossom like the rose." This ground, to-day, is like an oasis in the desert, a fruitful field in the midst of surrounding sterility. 500 Baldwin apple trees, planted by his own hands, grow thriftily on this plain, a living monument to his industry and skill.

Every thing he undertook was vigorously carried to its completion. His motto was, "what you are resolved to do, begin it this minute," and this was the secret of the immensity of his labors. Some men accomplish more in a short life, than others in a long one, and so this man, though dead at 40, lived longer and accomplished more, than most men at 80. His spirits never seemed to flag like those of other men. He looked a difficulty directly in the face, and walked up to it while looking.

He considered a matter well, before he enlisted in it, but once engaged, he worked with all his might. Like Napoleon, he was just as courageous the day after defeat as before. No sooner was a difficulty vanquished than he sought out and grappled with another. His presence, even, inspired confidence. He had the power of infusing ambition into those around him. Wherever he went there was life and energy. He was regular and precise in all his movements, and required regularity and precision in all whom he controlled. Every workman had a place for his hat and clothing, labelled with the name of the one occupying it. Every tool and implement had a place, and was thoroughly cleaned after using. Printed regu-

lations for the government of his workmen, hung in his kitchen.

His defects consisted in an over promptness. He seemed so anxious to reach the mark, that he sometimes went beyond it. Take him all in all, however, he was a good man, beloved by his family, respected in the community and an honor to the church of which he was a member. His life and his burial will not soon be forgotten, by those among whom he lived. He has left a worthy example to all young men, showing clearly that energy and intelligent industry is all that is needed, to make farming profitable.

West Springfield, Mass., 1854.

THE CYCLE OF THE SEASONS.

The following article was published in the *Scotsman*, upon the cycle of the seasons, and will interest many of our readers, we have no doubt. The measure below called a *hectolitre*, is equal to two bushels and five-sixths of our measure—the franc is equal to 18 cents and 6 mills of our money.

"The 'uncertainty of the weather' has been a subject of complaint to the husbandman from time immemorial. Science has shown, however, that law and order prevail in many phenomena once deemed to be under the blind dominion of chance, and ingenious men have indulged the hope that a key might yet be found to the irregularity of the season—not that we shall be able to prognosticate whether any particular day or week will be foul or fair, but that we may have rational grounds for expecting a good season or a bad one, or a series of good or bad seasons. Intelligent farmers believe that a course of abundant crops is pretty sure to be followed by a course of deficient ones; but whether the cycle of good and bad crops is of a determinate or a variable length, and if determinate, how many years are required to complete it, are points upon which opinions differ widely, and certainty is perhaps despaired of.

"A paper read a few days ago by M. Bacqueral to the Academy of Science, on the culture of wheat in France, supplies statistical facts of some value bearing on this subject. They show that there is a periodicity in the recurrence of good and bad harvests; that five or six years of abundance, and five or six of scarcity, follow each other pretty regularly. From want of capital and enterprise, and good means of internal communication, the French are more dependent on their own harvests than we are in this country, and the difference between a good and a bad year telling more strongly on their markets, serves better to test the influence of the season. M. Bacqueral quotes from Hugo the following table of the average price of wheat for all France:

	France per hect.	Shillings per qr.
1816 to 1821—period of scarcity.....	23.66	54s. 5d.
1822 to 1827—period of abundance.....	15.90	36s. 4d.
1828 to 1833—period of scarcity.....	22.00	50s. 7d.
1834 to 1837—period of abundance.....	16.16	37s. 2d.
1838 to 1843—mixed period.....	20.51	46s. 8d.
1844 to 1847—period of scarcity.....	25.68	59s. 0d.
1848 to 1852—period of abundance.....	16.68	38s. 4d.

We arrive at a similar result by comparing the imports and exports of wheat, and taking the excess of the one over the other:

		Hectolitres.
Scarcity...1816 to 1821.....	Excess of Imports...	6,247,000
Plenty...1822 to 1827.....	Exports...	1,258,000
Scarcity...1828 to 1832.....	Imports...	9,528,000
Plenty...1833 to 1837.....	Exports...	944,000
Mixed...1838 to 1842.....	Imports...	1,126,000
Scarcity...1843 to 1847.....	Imports...	18,997,000
Plenty...1848 to 1852.....	Exports...	13,188,000

"The hectolitre contains 22 imperial gallons, or three hectolitres are a trifle more than a quarter. It will be observed that the importation of wheat in France, in years of scarcity, is very small when compared with ours. This, in the period from 1843 to 1847, while wheat averaged 59s.—a very high price in that country—the whole imports in the five years were only 20,161,000 hectolitres, from which, deducting 1,164,000 of exports, there remained for consumption only 18,997,000, or 6,400,000 qrs. In the period of scarcity, from 1816 to 1821, when the price was 54s. 5d., the imports were only 6,247,000 hectolitres in six years, or about 845,000 qrs. annually.

"The five years from 1847 to 1852 were years of abundance both in France and Britain. Supposing, then, that the change takes place quinquennially, we should now be at the commencement of a period of scarcity, and that the present year fulfils this character is manifest from the state of the markets on both sides of the Channel. The French average for the first two weeks of November, as given in the *Moniteur* a few days ago, was 29.97 per hect., or 68s. 11d. per qr.—a famine price in France; and the British average for the whole of November was 71s. 1d., marking rather severe dearth. It is, therefore, a question of some importance, whether we are to regard the present deficient crop as a pure 'casualty,' an evil which an opposite casualty the next year's abundance may redeem, or as the first of a series of bad crops. In our opinion, the hypothesis of a five years' cycle, embracing the latter conclusion, though not established beyond challenge, has a sufficient probability to render it worthy of entering into the calculations of farmers, corn merchants, contractors for public works, and even ministers of state.

"A hypothesis offered to explain anomalous or seemingly discordant physical facts is more readily accepted when we can trace in it the operation of some physical cause. In the *Scotsman* of the 7th of September, 1845, we gave an account of a memoir published by Schwabe, a German astronomer, on the spots of the sun, in which he maintained their periodicity—that they increased for a certain term, then diminished for an equal term, and that the interval between the maximum and minimum was about five years, so that the cycle was completed in about ten. This conclusion rested on the observations of eighteen years, which (as Colonel Sabine informed the British Association at Belfast) have been since extended to twenty-six years, and with the same result. Now, as the light and heat of the sun are obviously essential to the success of grain crops, it occurred to Gaustier, a French or Swiss man of sciences, to compare Schwabe's cycle of the solar spots with the results of the harvests in France as shown by the price of corn; and he found that, taking the years in groups, to eliminate accidental influences, those in which the sun had few or no spots coincided with years of abundance, and those in which the spots were numerous with years of scarcity. We have here, then, a glimpse of a physical cause or

account for these alternating periods of scarcity and plenty, which experience has forced upon the attention of our farmers. It is true that the spots of the sun cover but a very small portion of his surface at any time, but the decrement of heat in a bad year is also small compared with the whole quantity which the earth receives from the sun; and it is not improbable that, besides causing a direct loss of light and heat proportioned to their size, spots when abundant may indicate a general enfeeblement of the heating and illuminating power of the whole surface of the sun.

"The progress of science is constantly adding to our knowledge of the latent ties which connect the most distant parts of nature. Those minute deviations from the normal position of the magnetic needle, called its diurnal variation, were discovered a hundred years ago, and gave plain indications of solar influence. It was only known within these few years that these variations were themselves subject to variation—were greater in some years than in others—and that another class of phenomena, called 'magnetic storms,' sudden and seemingly unaccountable disturbances of the needle, disclosed themselves. It is now found that these are periodical also. To use the words of Colonel Sabine, 'there is a periodical variation or inequality affecting alike the magnitude of the diurnal variation, and the magnitude and frequency of the disturbances of storms, and the cycle or period of the inequality appears to extend about ten of our years, the maximum and minimum being separated by an interval of about five years.' Perhaps by-and-by the hope and prospects of the husbandmen may be read in the vibrations of the compass."

FACT VERSUS THEORY.—It is a common notion, that to have good crops the seed must be often changed, and many farmers relying on this theory, sow seed that is "far fetched and dear bought."

In a conversation, last evening, with Mr. Jonathan Nelson, of this city, well known here as a substantial farmer and a reliable man, he informed me that he helped reap a field of rye, the past summer, of a little less than one acre and a half, yielding thirty-eight and a half bushels of excellent quality; that he has helped reap fifty-five successive harvests of rye on the same farm, owned by his father, (the late Deacon Nelson) and himself, *that in all that time the seed had never been changed*; that the first of those fifty-five harvests was from seed raised on the same farm by the former owner, and that he knew not how long the process of independent husbandry had been carried on by his predecessor.

Facts and theories often disagree but nature is constant and true to herself.—*Worcester Spy.*

TO THE TRUSTEES OF THE MIDDLESEX AGRICULTURAL SOCIETY.—The Commissioner of Patents has forwarded to the Secretary of this Society, under the frank of the Hon. TAFFAN WENTWORTH, a package of the improved *King Philip or Brown* corn, for each Trustee, which may be had on application at this office, or at the residence of the Secretary in Concord. SIMON BROWN,
May 10, 1854. Secretary.

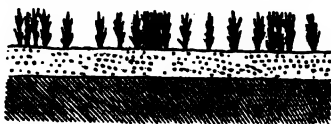


GRAIN DRILL.

We have often spoken of the importance of the *Grain Drill* as a labor-saving machine. The cut above will show how simple a thing it is, and how easy and readily the seeds may be put into an acre of land, all in straight lines, and at regular distances from each other. The seeds are deposited at a uniform regulated depth, from which arises a considerable saving of seed, one-third at least, while there is, usually, a considerable increase in the crop over the broadcast sowing.

As the machines are constructed in England, they are complicated, cumbersome and expensive, and it is probably for this reason that they have not come into general use.

Below are two cuts, the first showing the grain as it comes up, and appears when sown broadcast, by hand: and the second, how it appears when sown by the drill machine.



GRAIN SOWN BY HAND.

The advantages derived from using drill machines for sowing wheat and other small grains, have been summed up by Mr. BINNS, at a meeting of an English agricultural society, as follows:—

1. The seed is delivered with regularity.
2. It is deposited at a proper depth.
3. The weeds during the growth of the plants, may be destroyed with great facility. [In this country the weeding of grain is not common. Indeed, when it is sown broadcast, weeding it could not be done without destroying the crop.]
4. By admission of the sun and air between the rows, a stronger and healthier plant is produced, and of course a heavier crop.

Mr. BINNS gives five or six other reasons for drilling, but they are not quite applicable to our modes of husbandry. He also states that *fifty-six*



GRAIN SOWN BY MACHINE.

bushels of wheat, per acre, have been raised on the light soils of Norfolk, England, by drilling. One great advantage of this mode is, that if the field is first harrowed down level, the drill deposits the seed at an equal depth; it then comes up all at the same time, and the crop is even and presents a fine appearance through the whole season.

For the New England Farmer.

BARLEY AND INDIAN CORN.

MR. EDITOR:—In the *New England Farmer's* report of the twelfth Agricultural Meeting at the State House, Mr. Russell, of Pittsfield, is represented as saying that "good heavy barley is worth three times as much as corn." Now as the speaker could not have intended to make that statement, will you favor your readers with what he did mean, as to the relative value of the two mentioned grains.

I have raised barley, more or less, for ten years past, and am of the impression that a bushel of good well cleaned barley will make as much pork as a bushel of corn. Indeed I think it particularly adapted to the purpose of fattening pork. When ground fine and the meal scalded and allowed to stand till fermentation commences, hogs love it better than any food I ever fed them, and I think they will thrive faster than on any other.

That barley is equally good for other animals I doubt not; but what I wish more to call the attention of your readers to, is, the fact that grass seed, sown with barley, always catches.

Much complaint is heard now-a-days of the

failure of grass seed to catch or grow when sown with grain. Now I have never known a failure, when good seed has been sown on good land, with barley. Two years ago this spring I sowed a field, one half with oats and the other half with barley, and stocked the whole with timothy and clover. At harvest, where the oats were grown, there was no grass, while beneath the barley there was a luxuriant growth of it. This experiment, with my former observation, satisfied me that *barley*, and not oats, was the grain to grow, when seeding land with grass.

I have raised repeatedly, fifty bushels, and once more, from an acre of land.

E. J.

Lebanon, N. H., April 18, 1854.

REMARKS.—We cannot tell our correspondent what Mr. RUSSELL meant. That barley is a profitable crop to raise, and better than oats to lay down land upon, we have no doubt.

For the New England Farmer.

PLOWS AND PLOWING.

Complete pulverization of the soil is the basis of all successful culture. This is brought about mainly by the use of the *spade* and the *plow*. Where personal labor abounds, and the extent of culture is limited, the spade may be advantageously used. Under its use, the culture may be more thorough than any other. But where the power of the ox or the horse is enlisted in aid of that of man, the plow is the implement to which these powers are applied.

From earliest times, when the crooked stick was first applied to this purpose, to the present day, the plow in some of its forms has been the implement of first importance, in the labors on the farm. Notwithstanding its long-extended use, it has received more variations in form and greater improvements within the last fifty years, than any other implement. And although it now has an admirable fitness for its purpose, it is probably destined to still greater improvements.

Within a very few years, a form of plow has been introduced, embracing such decided advantages, as to entitle it to the application of the *plow* by way of distinction. I speak of the *double plow*, which cuts two furrow slices at the same time—laying a few inches of the turf over flat, and thus throwing the next substratum directly upon it. On land adapted to this operation, as are all cultivated grounds, that have been properly freed of obstructions, it is apparent that the use of this plow will leave the ground in a state for much easier and more perfect culture, than any other. Suppose *nine inches* to be the depth of plowing thought expedient—let the first furrow be cut to the depth of *three inches*—and the second to the depth of *six inches*, and you have the perfection of work. By the use of the harrow or the cultivator, this last furrow slice can readily be broken up, so as to work as easy as old ground—by which we mean ground that has been under cultivation, one or more years.

Perhaps it will be objected, that the vegetable materials or the richest part of the soil is buried too deep by this operation; and that the material thrown up with the subsoil will not be found favorable for the growth of plants. Such objec-

tions will be found more theoretical than practical, when it is known that very few plants are grown the fibres of which do not extend as deep, at least, as nine inches; and when it is considered also, that this depth is absolutely necessary to protect the plants against the scorching rays of our summer sun. Many a plant has withered and died for want of such foothold. There is no vegetable or plant, within our knowledge, that will not grow better through the entire season, under a culture as deep as this, than with a more shallow culture.

Another consideration connected with this mode of plowing is worthy of particular notice. It places the vegetable matter in a position for decomposition where its benefits will all be preserved and used by the growing plants, at a time when most needed. The first impulse should be given to the growing plants, by the dressing of compost applied at the time of planting. About three months after this, when the vegetable fibres in the buried turf begin to decay, the gases disengaged by the process will be absorbed and taken up by the growing plants, and are peculiarly well fitted to aid their growth. Whereas, if the turf had been broken to pieces, and much of it left near the surface, as is usually done in the ordinary process of plowing and harrowing, very much of the sustenance given to the growing plants would be lost by evaporation. We have seen this distinctly illustrated on a field of onions where the vegetable matter turned under the furrow slice (green oats, for instance) were left undisturbed, and right side by side, the land was cultivated with like crop and like manure, excepting the underlayer of oats;—and the crop over the oats amounted to 700 bushels to the acre, when the other was less than 500 bushels to the acre.

We have seen it stated that it requires more effort or power to operate a plow cutting two furrow slices, than one cutting a single furrow slice of the same width and thickness as the two. Such was our first impression, when we operated the double plow. But our impressions have been corrected by the actual measurement by the *dynamometer* of the power used in the operation. When we reflect upon the principles involved, we think it quite clear; that the double plow will go with more steadiness, and less power of draft, than the single plow. If this be so, we cannot imagine a single valid objection to the use of this implement. We have repeatedly recommended its use, and feel confident that we are doing the farmer a good service in still recommending it.

Cheerfully granting to the gentlemen who first brought into use among us this form of plow, all the credit that can be claimed for so doing, we as cheerfully grant to those other gentlemen, who have so far improved upon the form first used, as to obviate all the material difficulties in its first operation—to wit, the want of perfect turning and laying of the first furrow slice. This we think an essential element in the operation of the plow.

While scientific men attempt to press upon laboring men uniformity in their operations in breaking up the soil, it is curious to observe how they themselves differ in the first elements of these operations. Instance, in their mode of spelling the name of the implement: one using four letters as *plow*—the other six letters as

plough—both having the same sound and pronunciation. Why these different modes of spelling the same thing is thus continued, it is not easy to say. The *shorter* mode, unless some good reason can be given for adhering to the *longer*, is certainly preferable. It is certainly no sufficient reason to say it used to be so. Because such a reason once admitted would exclude all improvements. On referring to dictionaries, we find both modes of spelling inserted, with no preference given. On referring to agricultural journals we find both modes adopted—the “*eminent guide*” in this operation, in Massachusetts, uses *six letters*—the equally respectable guides in New York, Pennsylvania and Ohio, use only four. “Who shall decide when doctors disagree?”

P.

FARMER'S GIRLS.

Up in the early morning, just at the peep of day,
Straining the milk in the dairy, turning the cows away,
Sweeping the floor in the kitchen making the beds up stairs,
Washing the breakfast dishes, dusting the parlor chairs.

Brushing the crumbs from the pantry, hunting the eggs at the barn,
Cleaning the turnips for dinner, spinning the stocking yarn,
Spreading the whitening linen down on the bushes below,
Ransacking every meadow where the red strawberries grow;
Starching the “*flaxens*” for Sunday, churning the snowy cream,
Rinsing the pails and strainer down in the running stream,
Feeding the geese and turkeys, making the pumpkin-pies,
Joggling the little one's cradle, driving away the flies;

Grace in every motion, music in every tone,
Beauty of form and feature thousands might covet to own,
Cheeks that rival spring roses, teeth the whitest of pearls,
One of these country maids is worth a score of your city girls.

—New York Tribune

HARLES M. LADD.

FARMERS' ARITHMETIC.

Perhaps in no one thing is the “*arithmatic*” of the farmers put to a severer test than in ascertaining the value (perhaps with cold fingers) of a given number of pounds of hay at a given price. To those I would recommend the following rule of Adams, as easy, practicable, and infallible:

RULE.—Multiply the number of pounds of hay, or coal, by one half the price per ton, pointing off three figures from the right hand. The remaining figures will be the price of the hay, or coal, (or any other article by the ton,) in cents and mills, which can easily be reduced to dollars.

EXAMPLE.—What will be the cost of 658 pounds of hay, at \$7.50 per ton?

SOLUTION.—\$7.50 divided by two, equals \$3.75—by which multiply the number of pounds, thus:

658
\$3.75

3290
4600
1974

\$2.46 7/10

The principle in this operation is the same as in interest—dividing the price by two gives us the price of half a ton, or 1,000 lbs., and pointing off the three figures to the right is dividing by 1,000—the same as in interest. The result above we have found to be \$2.46, which is correct. And now, brother farmer, get your pencil, and see if you can find the above rule in fault.

For the New England Farmer.

MILCH COWS.

MR. EDITOR:—I received from you, by hand of B. F. Cutter, Esq., a copy of the transactions of the Middlesex Agricultural Society, (for which I am much obliged to you,) and at the same time an invitation to write an article for your paper, on milch cows, for which I am not so much obliged, but will try and give a few ideas on the subject. I have never kept more than from twelve to fourteen cows, and so far as my experience goes, I have come to the conclusion that it is best to keep good ones, and no more than I can keep well. When they come to the barn in the fall, I am careful to give them a change of feed as much as possible. To those that do not give milk, I give the poorer hay, and occasionally corn husks, stalks, &c., until about six weeks before calving, when I give them better hay, and some grain. By this way of managing, the flesh that the cow puts on by her own industry in summer, is easily kept on through the winter, with a little extra care, which enables her to bring us a good, strong, healthy calf, worth at least five dollars, when four weeks old. To the cows that I milk through the winter, I give good hay, giving them for a change a foddering, of clover, husks and *rowen* (if we have it,) almost every day. The clover I always intend to use up before the first of March. I feed them on chop twice a day, mixing a few hours before feeding, giving them about four quarts of shorts and two quarts of cob-meal a day with about half a bushel of cut hay of poor quality, with a table spoonful of salt at each time of feeding. This I think produces more milk than the same quantity of grain given in any other way. Great care should be taken not to excite the cow when driving to water or the pasture. If the boys must drive them, do not let but one drive at a time. Kindness pours out the milk and lays on the fat. Kicking cows, are always plenty, where there are kicking milkers; *I know it by experience*. It is an old and true saying, that “good pastures make fat calves,” and it is equally true, that much feed make much milk. As to the different breeds of cows, I have not had much experience. I have one that is called the cream-pot breed, which is one of the best I have ever owned for milk. There are quite a number of half blooded Ayrshire in the neighborhood, which have the name and appearance of being good milkers. I am rather partial to the old *native* breed for milkers, when I can get the right pattern; that is, I want a cow of good size, one that will make 5½ or 6 hundred of beef when fatted, wide between the eyes, small horns, long slender neck, head inclining downwards, rather a thin skin, broad across the kidneys, small tail, small flattish leg, the udder large, running well forward and back, equally quartered, and the teats well apart, thin thighs, and last, but not least, a large crooked milk vein running well forward with a large hole at the end. One thing more should be taken into consideration, and that is, the disposition, which can almost always be told by the countenance. Tameness and docility of temper greatly enhances the value. One that feeds at ease and does not break over fences, and is kind to her associates, will always yield more milk, than one of the opposite disposition. When I buy a cow of the

above description, I am pretty sure I have got a good one, and think the above marks are a very safe guide to purchase by. I have lately been reading Guenon's Treatise on Milch Cows, and find it a good work. His ideas on diseases and their treatment are worth knowing. His books only cost thirty-seven and a half cents.

Now, Mr. Editor, I have complied with your request, in a very feeble manner, and will only say, that I hope you will extend the same invitation to some other person more competent than myself, and thereby get more and better ideas.

JOHN M. TYLER.

Pelham, N. H., March 31, 1854.

STATE BOARD OF AGRICULTURE.

MET AT THE STATE HOUSE APRIL 10, 1854.

His Excellency, Gov. WARREN, presided.

The committee appointed to consider the terms and receive the transfer of the farm, reported that they had met a committee from the Board of Trustees, at the farm, on the 24th of March last, and completed the transfer, and passed over into the hands of the Board of Agriculture, all the land, with the exception of an acre or two immediately about the institution, together with the stock, fodder, farm implements, &c. &c. On the 29th of the same month, the same committees made an appraisal of the property, of all sorts, and entered the same upon the instrument of transfer.

The act authorizing the transfer was then accepted by the Board, together with the agreement and the appraisal of the committees, and the whole report of the committee was accepted.

The Board then adopted a code of By-laws, for the future government of its affairs, the second section of which is as follows:—

Sect. 2.—There shall be annually elected by the Board, a superintending committee of the farm at Westboro', consisting of eight members, whose duty it shall be to meet at the farm once in each month, and oftener if they deem it necessary, to make such arrangements and give such directions to the farmer as the various crops, trees, stock, and other interests of the farm may require. This committee may be sub-divided, and give direction to its divisions at its own discretion, and shall report fully to the Board at each of its quarterly meetings.

The committee appointed under this section is as follows:

MARSHALL P. WILDER,
MOSES NEWELL,
SIMON BROWN,
B. V. FRENCH,
JOHN BROOKS,
J. A. NASH,
HENRY M. CLAPP,
SETH SPRAGUE.

The Board then directed that the committee appointed to superintend the farm operations, cause a survey of the farm to be made, with a plan of the whole, accompanied with suggestions for general improvements, to be submitted to this Board at the quarterly meeting in July.

Messrs. BROWN, WILDER and WRIGHT were elected a committee on Finance.

Messrs. PAGE, BREWER and Smith were appointed a committee to audit the accounts at the close of the fiscal year.

After the several items of business had been disposed of, there was a general conversation, occupying considerable time, in which the members of the Board expressed their opinions of the true mode of managing the farm, and it was found that upon most of the important points, there was a harmony of opinion which promises much in all future operations.

On Wednesday, April 11, the superintending committee met at the farm, and after a general survey of the fields, pastures, stock, implements, &c., assembled at the farm house, and organized the committee by the election of Mr. FRENCH, of Braintree, as chairman. It was then voted, 1. To direct the farmer to prepare the land for such crops as it is contemplated to put in this spring, according to a schedule heretofore prepared by Mr. BROWN and the Farmer, and now laid before the committee.

2. To sub-divide the committee of eight into four sub-committees, as follows:—1. On the survey, plan, and general improvement of the farm. 2. On the purchase, sale, and feeding of stock. 3. On the field and garden crops. 4. On providing and regulating the labor. And the sub-committees were elected as follows:

On general improvements, Messrs. BROWN and FRENCH.

On the purchase, sale, and feeding of stock, Messrs. BROOKS and NEWELL.

On the field and garden crops, Messrs. WILDER and NASH.

On providing and regulating the labor, Messrs. SPRAGUE and CLAPP.

The operative forces for the present management of the farm are now complete, as in addition to the duties detailed and specially assigned, the secretary of the Board will have a general supervision of the whole, and from time to time suggest whatever may seem to him to be deficient in the plan of operation, or whatever of additional energy ought to be imparted to it in order that it shall succeed.

But any striking results, either in the crops or the general improvement of the land, cannot reasonably be expected for the present. It must be a work of time to accomplish either. What lands are best adapted to particular crops, what fertilizers are best for these crops, what depth to plow, and when to sow and plant, are all questions which must be decided by careful practice and experiment. And so it must be with the stock and fruits. We can only hope, now, that the Board will bring its collective wisdom to bear upon a single point, viz:—that it will make a correct

beginning, so that every labor and expense shall contribute to a desired result, and that the example shall be one, worthy of imitation by every farmer in the State, as well as those who desire to embellish a private country home—that good sense and a pure taste shall be so blended with a wise system of practical farming as to satisfy the good people of the Commonwealth that there may be both beauty and profit found in rural life, when its affairs are properly conducted.

For the New England Farmer.

FARMING IN NEW ENGLAND—No. 5.

The constant deterioration of the soils in New England, and indeed, throughout most of the agricultural districts of the United States, is a fact of portentous and alarming significance, though it has not yet arrested very extensively the notice of the public. Probably there is no one fact, in our agricultural economy, of more pregnant interest than this, in its bearings upon our future prosperity. Some statistics, illustrating this downward tendency in our ability to produce the fruits of the earth, will now be given, and they will, I think, conclusively prove that a more prudent, skilful and scientific mode of cultivating the soil, is absolutely indispensable.

Between 1840 and 1850, three hundred thousand acres of land were added to those previously under improvement in Massachusetts. Ninety thousand acres were added to our mowing lands, and yet there was a relative depreciation of the hay crop during that decade of years, of 12 per cent. Our tillage lands, during the same term, were increased forty thousand acres, and yet there was an absolute depreciation in our grain crop of six hundred thousand bushels. The pasturage lands were increased more than one hundred thousand acres, with scarcely any increase of neat cattle, and a reduction of one hundred and sixty thousand sheep, and seventeen thousand swine.

The same law of deterioration is also observable in the richer regions of the South and West—showing, that with our present unskilful modes of farming, we are taking much more from the productive ability of our soils than we are returning to them, and that our agricultural prosperity is really and constantly on the wane. This downward tendency is partially hidden from public observation by the vast products which are raised upon the new and almost limitless regions which are every year put under cultivation at the West; but the fact itself is still indubitable.

In the State of New York, between the years 1845 and 1850, 671,692 acres were added to those previously under improvement, and of course, there ought to have been at least a corresponding increase in the agricultural products of the State. But what was the fact?

The number of horses decreased 55,141.
Milk cows decreased 66,066.
Of other cattle, there was a decrease of 127,525.
Of sheep, there was a decrease of 2,990,624.
Of swine, there was a decrease of 566,092.
Of potatoes, the decrease was 7,255,066 bushels.
Of peas and beans, there was a decrease of 1,182,051 bushels.
Of flax, the decrease was 1,966,485 pounds.
Of wool, the decrease was 3,766,527 pounds.
Of wheat, the decrease was 270,724 bushels.
Of buckwheat, the decrease was 456,724 bushels.

There was an increase in the amount of corn, rye, oats, barley, hay, butter and cheese raised in that State, but no greater than would have been expected from the increase of the population, which was 494,323, during those five years.

In Tennessee, the number of cattle raised was

In 1840.....	822,861 head.
In 1850.....	750,765 head.

Showing a decrease of.....72,096 head.

In Kentucky, more than nine-tenths of the entire area of the State are covered with farms. The number of neat cattle raised was

In 1840.....	789,098 head.
In 1850.....	753,312 head.

Showing a decrease of.....35,786 head.

Horses and mules raised in Kentucky:

In 1840.....	395,853
In 1850.....	381,291

Decrease.....14,562

It is estimated by intelligent farmers in Indiana, that their river bottoms, which used to produce an average crop of sixty bushels of corn to the acre, now produce only forty. In Wisconsin, which is younger still, it is estimated that only one-half the number of bushels of wheat are now raised on the acre, which were raised twelve years ago.

These estimates are based on the returns made to the Patent Office, and are as reliable as any now before the public. What, then, is the conclusion of the whole matter? It is this, that the soils of New England, after all the admonitions we have received upon the subject, are annually growing poorer, and that even the virgin lands of the Great West are rapidly becoming exhausted of their fertility. Other and better modes of cultivation must therefore be introduced and practiced, or our country—now the granary of the world—may at no very distant day, become dependent on other lands for its daily bread. Within fifty years, our population will undoubtedly reach the enormous number of one hundred millions; but the grave question is, how are these teeming myriads to be fed and clothed and educated, if our present impoverishing agricultural processes are to be continued? We have territory enough, and it is naturally rich enough to support a population of one thousand millions—a number to which we may yet attain—but how can they be sustained, unless some method is devised to keep up the productive capabilities of our country, and return to our liberally discounting soils, as much, at least, as we abstract from them? This is a problem, which many thoughtful and far-seeing men are beginning seriously to ponder, and which requires no little wisdom to solve.

The large annual exports of our surplus cereal productions, furnish no reply to the positions taken in this article, but rather go to corroborate them. Such surplus only shows that we are stimulating our farms to the highest point of present productiveness, for the sake of immediate benefit, while we are making no compensating returns to the acres on which we are levying such exhausting conscriptions. Our apparent prosperity is deceitful. We are attempting to fill our own pockets, at the expense of future generations.

Waltham, April, 1854.

D. C.

For the New England Farmer.

MAKING MAPLE SUGAR.

SIMON BROWN, Esq.:—Dear Sir,—At the suggestion of my friend, Hon. F. HOLBROOK, I send you herewith a sample of Maple sugar, and accompanying it a statement of the process of manufacture which I have adopted after an experience of forty years in the business. The sample is not sent as one of *superior excellence*, but is a *fair average* of some half ton made annually, without any refining, in the manner described herein.

TAPPING.

This is performed with a half-inch bit, to the depth of from 24 to 34 inches, according to the size of the tree. A good, sound, thrifty part of the wood is selected, without much regard to the side of the tree. The buckets are made perfectly clean and sweet by scalding, both at the commencement and close of the season, and are attached to the tree by a small nail driven up close, so as to level the bucket. The spouts are made of dark colored wood, with a small orifice, so as not to attract the sun's rays, or dry up, and sharpened in such a manner as only to crowd at the surface of the tree.

The sap is gathered with a team, in holders standing upright on the sled, and is drawn directly from them by means of a spout with the strainer attached into the sugar house, which is built on a side-hill to favor this operation, and so save labor, and prevent waste. The sugar house is well-ventilated by doors and windows, and sufficiently capacious to hold all the fuel wanted, and also all the sugaring apparatus.

The boiling is performed in two sheet iron pans, of the capacity of 14 bbls. each, set end to end in a brick arch, 1 foot high in the door, with the chimney in the rear, and a cast iron door at the mouth, and another smaller one in the middle of one side to put in wood and give a proper draft. Such an establishment is capable of boiling away one barrel per hour, and will require about one-half cord of wood per 100 lbs. of sugar.

When so far boiled down as to apron from a tin dipper, it is removed to a smooth caldron kettle, set in an independent arch on one side of the chimney, and while still warm, about two quarts of skimmed milk per 100 lbs. of sugar is well stirred in, and then it is raised to boiling heat, and passed through the strainer frame. It is then put immediately into a brass kettle, (set in another arch on the opposite side of the chimney, in a movable manner,) and boiled down rapidly, until, when blown in bubbles from the sugar trier, it will rattle distinctly on the boiling sugar, when it is taken off, partially cooled in the kettle, stirred a little, and ladled into the caking moulds to prepare it for market.

APPARATUS USED.

A dipper made of double tin, holding one gallon.

A strainer frame made of four upright pieces of scantling (something similar to the frame of a table) with strips of board nailed on the top, and at the sides to hold them together. Nails are driven into the legs to which three strainers are hung, one above the other, by loops at the corners; the upper, being a common milk strainer, the next thicker, and the bottom one a very thick flannel. The syrup passed through this apparatus will be so

perfectly pure that no sediment will settle, if it should stand ever so long, and there will be no need of boys to hold strainers till the patience even of a young "Job" would be exhausted.

A sugar-trier is merely an elastic twig, with a knot so tied in the end so as to leave an orifice of the size of a ninepenny bit. This is thrust into the boiling sugar, and makes good fun for the children to blow off the bubbles. If used as above recommended, there is no need of failing in sugaring off just right once in a hundred.

Caking moulds are made with a bottom of zinc, with strips of wood nailed on around the sides, and lengthwise, into which are put partitions of zinc crosswise, making oblong cakes of any size and number on a mould which the manufacturer may fancy.

REMARKS.

By the above method the sap is never cooled until the sugar is entirely done; consequently a saving of fuel, labor and syrup is made, and in my opinion the quality of the sugar is better.

A half-inch bore is better than a larger one, as it does not injure the tree so much, and it will afford full as much sap, taking the season through. The flow of the saccharine fluid depends mainly on the *depth* of bore, not on its *size*, as many imagine.

A nicer and whiter sugar may be made by doing it down slightly, and draining in a tub with a wet cloth on the top; but the flavor of the article is not so good as that of the cake sugar undrained. I come now to a point on which I have the misfortune to differ from most writers for the agricultural papers. The prevailing opinion seems to be, "that all sap will make equally white sugar with the same care and attention." I am satisfied both from analogy and observation, that this is a mistake. My opinion is that the nature of the soil has as much to do with the quality of maple sugar as it has with that of wheat or any other vegetable production. No two things in the vegetable kingdom are in every respect precisely the same. Their character depends in a greater or less degree upon the mineral and other substances in the soil. The sugar maple growing in a limestone soil takes up lime, as any observing man can easily discover by settling pure syrup strained as above described. I have sugared off the bottom of such syrup, and found it to be more than half pure lime, in a fine state of solution. It is very white, but will not adhere in a cake. Nearly all the very white sugar which has fallen under my observation at our fairs came from a limestone soil. The presence of gypsum undoubtedly would have the same effect, while iron would have an *opposite* one, and so of other minerals, according to their character. In selecting the ground for a sugar orchard, therefore, the preference should be given to such soils as have for a base, mineral substances affording a light color.

Please excuse the length of this article, for the subject is nearly inexhaustible, and for some of the notions therein I feel somewhat of the partiality of a father to his children.

Yours truly, IRA GOODHUE.
Westminster West, Vt., April 10, 1854.

REMARKS.—We are obliged to Mr. G., not only for the liberal samples of his excellent sugar, but

for the description of his process of manufacturing it, and remarks upon the soils best adapted to the sugar orchard. To us, good maple sugar is a luxury, and as an accompaniment to a great variety of common dishes it is unsurpassed.

NEW PUBLICATIONS.

LANDSCAPE GARDENING: OR, PARKS AND PLEASURE GROUNDS, WITH PRACTICAL NOTES ON COUNTRY RESIDENCES, VILLAS, PUBLIC PARKS AND GARDENS. By CHARLES H. SMITH, Landscape Gardener, Garden Architect, &c., with Notes and Additions, by LEWIS F. ALLEN, Easton, N. Y.

There is no man, permanently settled on his farm, but may profitably introduce something of landscape gardening about his house; it may be a very little, but that little will give the whole premises an air of neatness and comfort and attraction which larger and more pretentious homesteads shall utterly lack. We have seen a tenant so beautify the premises which he was occupying by virtue of a lease, and with little prospect of remaining after that lease had expired, that the whole property was considerably enhanced in value in the course of a few years. This was done with a view to supply his table with the common garden fruits and vegetable, but at the same time the promptings of a true taste were indulged, and the beautiful grew up under his hands, as well as the crops he was cultivating.

But this taste for the beautiful, if natural to all, has never been developed, and something is needed to excite it and lead it on. Good examples among us, in such a degree of landscape gardening as would be feasible to all, would do much, —but we must have other helps. The book before us, may prove such a help. It is plainly written, gives all the suggestions necessary to begin and complete a desired plan. In some respects it is not adapted to our climate and mode of living; but the notes by Mr. ALLEN,—one of our most practical farmers, as well as a gentleman of fine taste in rural art,—will obviate any difficulty on that score. The book is well printed on large, fair type, and sold at \$1.25, by Tappan & Whittemore, Boston.

EDDY ON BEE-CULTURE, AND THE PROTECTIVE BEE-HIVE. By HENRY EDDY. With an introductory notice by Dr. J. V. C. SMITH. Damarrell & Moore: Boston.

Dr. EDDY has evidently given the subject of Bees, and the Bee-Hive, much attention, and has treated the subject simply and intelligibly, so that those who "run may read and understand." His teaching, we believe, is safe throughout, and the bee-keeper will find it valuable.

THE PRACTICAL FARMER.

The second number of this newspaper is before us—the first was duly received, but was spirited away before we had time to read it. It is a large and handsomely printed sheet, and filled with valuable and practical articles. Its Editors are already well known to the public as the Editors of

the *Journal of Agriculture*, which paper will hereafter be made up from the agricultural portion of the *Practical Farmer*. We welcome to the field every co-worker in the great art, and hope to see good husbandry spring up everywhere from the suggestions and teachings of this *Practical Farmer*. Boston: William S. King, Editor; Prof. J. J. MAPES, and LEVI BARTLETT, Esq., Associate Editors.

TRANSACTIONS OF THE NORFOLK AGRICULTURAL SOCIETY, for 1863

Like its predecessors, these Transactions are of high interest. The Address, by the Rev. F. D. HUNTINGDON, is an excellent one; many of the reports are made up in a condensed form and are instructive. The society is prosperous and useful. In another column we give a report from these pages on milch cows.

TRANSACTIONS OF THE BERKSHIRE AGRICULTURAL SOCIETY.

The Transactions of this society are before us, and denote a growing interest and wholesome progress in old Berkshire. The Address was by JUSTUS TOWER, the President of the Society, and is a good one. The printer, in this case, does not do himself so much credit as do the farmers.

"GO FORTH INTO THE COUNTRY."

Go forth into the country
From a world of care and galle,
Go forth to the untainted air,
And the sunshine's open smile;
It shall clear thy clouded brow—
It shall lose the worldly coil
That binds thy heart too closely up,
Thou man of care and toll!

Go forth into the country,
Where glad some sights and sounds
Make the heart's pulses thrill and leap
With fresher, quicker bounds.
They shall wake fresh life within
The mind's enchanted bower;
Go, student of the midnight lamp,
And try their magic power.

Go forth into the country,
With its songs of happy birds,
Its fertile vales, its grassy hills,
Alive with flocks and herds.
Against the power of sadness
Is its magic all arrayed—
Go forth and dream no idle dreams,
O, visionary maid!

Go forth into the country,
Where the rose's rich clusters grow;
Where the strawberry nestles 'mid the furze
And the holly-berries glow.
Each season hath its treasures,
Like thee all free and wild—
Who would keep thee from the country,
Thou happy, artless child!

Go forth into the country;
It hath many a solemn grove,
And many an altar on its hills,
Sacred to peace and love.
And while with grateful fervor
Thine eyes its glories scan,
Worship the God who made it all,
O, holy Christian man!

Dublin Unity. Mag.

For the New England Farmer.

MONTHLY FARMER FOR APRIL.

Without in the least disparaging the abundant labors of the editor, which certainly indicate no ordinary degree of ability, experience and industry, the careful reader will perceive that for much of its attraction and interest, the *Farmer* is indebted to correspondents. Including brief inquiries and suggestions, we find that the Number for April contains forty distinct contributions, from probably about as many different individuals. If it be true that, "In the multitude of counsellors there is wisdom," the readers of the *Farmer* certainly have a good prospect of becoming wise. But how long would this continue to be the case, did not the correspondents of the *Farmer*, like guests at the mansion of a true gentleman, feel that they are at home,—free to speak, and act, and be, themselves,—with no sense of intrusion, no fear of some "iron-bedstead" that is to test their dimensions! We annex lists, of correspondence, Editorials, Selections, and Illustrations, for the April Number, in the order of paging.

CORRESPONDENTS.

Amasa Walker, (Mass.).....	Potato Rot.
F. Holbrook, (Vt.).....	Raising Pork.
C. Goodrich, (Vt.).....	Pruning Orchards.
..... (Mass.).....	Bee Culture.
Henry Holmes, (Vt.).....	Churns.
..... (Mass.).....	Manures.
J. H. B., (Conn.).....	Super-phosphate of Lime.
D. C., (Mass.).....	Farming in New England.
J. S. Gregg, (Vt.).....	Churning.
Eliza, (Wis.).....	Country Home.
B. F. Butler, (N. H.).....	Peaches killed by Cold.
A., (Mass.).....	Implement Fair.
N. F. Morrison, (Mass.).....	Fruit Raising.
C., (Vt.).....	Home Guano.
P., (Mass.).....	Agriculture in Massachusetts.
..... (Mass.).....	Experimental Farms.
..... (Mass.).....	Feed of Stock.
A city Mechanic, (Mass.).....	City and Country Life.
J. Richardson, (Mass.).....	Decomposing Bones.
Jane A. Morrison, (Me.).....	Profits of Sheep.
Joseph Howe, (Mass.).....	Cooked Meal.
G. F. Nutting, (Vt.).....	Dr. Greene's Fence.
R. M. Copeland, (Mass.).....	Ornamental Grounds.
H. F. French, (N. H.).....	N. Y. city B. R. and Stables.
New Subscriber, (Vt.).....	Ashes—Hofdust.
H. B. Minch, (Ohio.).....	Prices of Produce.
And Fourteen others.....	Make Inquiries and Suggestions.

EDITORIALS.

Calendar for April.
First Annual Reports of the Sec. State Board.
Where does all the Corn go to?
Seed Sower.
Reports (14 cols.) of 7th, 8th and 9th Legislative Agricultural Meetings.
Solid and Liquid Excrements of Animals.
Improvement of the Dairy.
Milk and Butter Cows.
Spirit of the Agricultural Press.
Steel Double Plow.
House Ashes.
Report Concord Farmers' Club.
Extracts and Replies.

SELECTIONS.

Concord Grape—State Premiums on Dairy—Remedy for Garget—How I saved my Currants—Carrots—Sheep—United States Agricultural Society—Soaked corn for Horses—Asthma cured by Plaster of Paris—Ancient Spinning Wheel—Onions, Breadmaking, &c.

ILLUSTRATIONS.

Seed Sower—Concord Grape—Steel Double Plow—Unimproved H. mestead.

Notwithstanding the condensed form of statement adopted and the small type used in the foregoing table of contents, does it not present a formidable-looking text for the poor reviewer? To give every topic an appropriate notice, and every writer "his meat in due season," would require more "heads" in his discourse, than parson Proxy

ever allowed in a sermon. He has not the courage to make the attempt, this month. Nor does there seem to be need of it. The April number is a capital one—it speaks for itself. Who that has read it will spare it from his files, for the cost of a year's subscription? A single number of the Monthly Farmer, in which a HOLBROOK shows how farmers can make both money and manure by raising pork in New England; a GOODRICH and a MORRISON, discourse on Fruit and fruit-trees; a FRENCH describes a stable two hundred feet square, and two stories high, where four hundred city horses are kept and fed under a discipline as strict as a Napoleon could desire; and a COPELAND shows what a garden should be; in which a city girl, now the wife of a Wisconsin farmer, tells us how she enjoys "a cow, a pig, and some chickens," and a farmer's boy relates his experience as a city mechanic; in which the proceedings of three Legislative Agricultural Meetings are recorded; in which a native grape, worth five dollars a vine, is pictured and described,—I submit, that a single monthly of whose contents all these articles are but specimens, is as much beyond the criticism as it is above the commendation of A READER.
Winchester, April, 1854.

For the New England Farmer.

A GOOD YIELD OF BUTTER.

MR. EDITOR:—I own a cow, who is 5 years old; she calved the 22d of January, 1854; weight of the calf at 4 weeks old, was 78 lbs., sold for 10 cts. per pound: The cow now gives 10 quarts of milk per day; so much for the calf and milk. Now for the butter, which is as follows: Last Wednesday night I measured 2½ quarts of milk from a pail which contained all the milk my cow gave at that time, which was 5½ qts. I strained it into one pan, set it into my pantry, which opens into a warm room; the next night I measured the same amount into another pan, which made 5 quarts, and set it into the same room. Last Saturday my wife skimmed both pans of the milk, and put the cream all into one pot, and by stirring it from 5 to 10 minutes it produced a nice lump of butter which weighed 15 ounces. So much in the month of March. You shall hear from this cow again in the month of June. A. BROWN.

East Abington, Mass., March 6, 1854.

LARGE PUMPKINS.—Having had good success the past season in raising fine large pumpkins, I will give you my plan and experiment. The ground planted was a warm, clayey loam, descending to the south. I planted the 20th of May, with corn and one and two pumpkin seeds in a hill, used about one table spoonful of plaster, or gypsum to the hill. The field was a clover sod, plowed once and harrowed three times. When the vines commenced to run, say one foot in length, I gave them a careful hoeing. After the fruit was well set, or some was six to eight inches in diameter, I covered the stem, and a small portion of the vine joining the stem, with moist, loose soil; the result was, that roots directly from the stem of the pumpkin were formed, and the fruit derived sustenance, and plenty of it, judging from the size and weight, which was from eighty to ninety pounds.—Plover.

For the New England Farmer.

GREEN CORN FOR COWS.

Allow me to make a few statements through the columns of your paper, in regard to what is so commonly known in Massachusetts and in parts of N. H., yet so seldom practiced in this section of Vermont and many parts of Massachusetts, even—the practice of supplying cows with a cheap and valuable kind of food at that season of the year when drought or rain, grasshoppers or none, the freshness of June feed is past, and common cows and common pastures alike “begin to shrink.”

Most farmers in this vicinity consider it one of the “necessary evils” that, during August and parts of the adjoining months, their cows should be either half-starved or allowed to re-roam over the oft-trodden pastures, and be content with a supply of withered grass, or browse from the neighboring woods. The result is, of course, a scanty abundance of milk, butter and cheese, and instead of the cows gaining in flesh and preparing for their winter service, are reduced in flesh, and before dog-days are past, too many of them become “spring poor,” and when they come to the barn for winter, look so much worse for the “wear,” that one must conclude that the whole summer’s feed has “run to milk and not to flesh.”

In the spring of 1852, two bushels of the southern yellow-flat corn were procured and sowed in the usual way, i. e. in drills 3 feet apart—manuring well, and taking care that the corn be so thick in the drill that no stalk should grow more than an inch in diameter. The season was unusually dry, and some farmers were obliged to feed out hay to their cows. Those who were prevailed upon to “try” the new notion had corn in plenty from the 1st of August to the 20th of September.

The result was, this “book farming” plan met with universal approbation, and in the spring of 1853, the procurer was requested to supply his neighbors with seed to the amount of thirty bushels. Most of this was sowed within two miles of this village.

After this fair trial during the season past, our farmers estimate the value of this feed to each cow, to be from three to five dollars, over the usual practice of grass feeding only. This is made up by the milk and condition in which the cows are found when coming to winter quarters.

During the present month, those who wish for corn are sending in orders for their supply, and if we may judge by the present amount called for, full 50 bushels will be sown in this vicinity the present season.

As dry fodder, we think a larger amount may be raised on an acre than of any other substance we have yet been acquainted with. I have cured the growth on six square rods, and fed one medium size cow, giving her all she would eat, (after cutting with a straw-cutter) in thirty-seven days. Thus the crop from one rod kept the cow a little more than one week.

The difficulty in curing will be an objection to its general use on a large scale, but as green feed we know of nothing its equal, when compared with the expense of raising.

The question is often asked, “Why is not our common corn just as good?” An equal amount is as good. But the quantity on the same ground

is very much less than of the southern, and it will not reach a size fit for cutting as early.

Our garden sweet corn is raised in some places with success, and but for the trouble of preparing seed for future use, would be more valuable for the latter part of the season.

The southern corn may be had of Messrs. H. & S. P. Hill, No. 58 Main Street, Charlestown, and of any grain dealer in the cities, and in many of our villages.

I prefer stabling my cows through the summer (thus saving all the manure, both solid and liquid) and then feed them in the morning. In this way cows will not acquire the “habit” of waiting around the gate in the pasture, in the latter part of the day, as when fed at night.

Plant about May 10th, June 1st, and June 15th, so as to keep a tender supply from July 2d, through the month of September. G. F. N.

Randolph, Vt., April 15th, 1854.

EXTRACTS AND REPLIES.

HOP ROOTS.

Mr. ORSON HADLEY, of Hyde-park, Vt., informs us that he can furnish Hop roots for 25 cents for one hundred, ready to plant, and that they can be sent by mail, at trifling expense.

HENS—SHOATS—GRINDING CORN.

M. B. C. RICH, Mount Vernon, Ohio. In reply to your inquiries about the kinds of hens and shoats which are considered the best in New England, we have to say that the Shanghai, Cochina China, Black Spanish, Golden Poland, and perhaps one or two other varieties, have their several admirers. The flesh of the large kinds, in juicy tenderness and richness of flavor, bears no favorable comparison to that of our common fowls. Some of the mixtures, as the Shanghai and Cochina China, are great layers, and good mothers. The Buck’s county, Pa., fowls, are about the right size, are good layers, and are good on the table. The Dorkings are a similar variety, and upon the whole, would probably prove as valuable a variety as any we have.

Suffolk Swine bear off the palm at present in pigdom. It is an excellent breed—is quiet, grows well and lays on fat readily, and when well served upon the table would make any reasonable Jew regret that he had forsworn pork.

There are a variety of mills used for grinding corn, by hand or by horse power, and are for sale in the agricultural warehouses.

THE YELLOW LOCUST.

I have about ten acres of land, on which I wish to grow the Yellow Locust—will you inform me how to prepare the seed so that it will vegetate—where the seed can be obtained and price? also, whether the seed should be planted where the tree is to remain, or is it necessary to transplant? Windsor, Vt., 1854. GEO. B. GREEN.

REMARKS.—Some attention has been given to the cultivation of the Locust as a forest tree, in

various parts of the country, and we believe with pretty good success. The tree grows rapidly and produces timber of great value. We have never prepared the seed for planting, but can say how it has been done by others; and on reference to some of the best English works, we find the practice by our own people sustained by some of the best writers on the planting and preservation of forest trees.

Doct. SAMUEL BARD's method of preparing the seeds was to pour boiling water on them, and let it stand and cool. The hard outer coat would thus be softened, and if the seed swelled by this operation, it might be planted, and would soon come up.

Judge MITCHELL, of North Hempstead, Long Island, took a quantity of seed and put it in an earthen pitcher, and poured upon it water near to boiling. After standing 24 hours, he turned off the water and selected the seeds that were swelled by this application of heat and moisture. To the remainder he added hot water again, and after 24 hours, selected as before, and so again the third time. He planted the seeds in drills about four feet apart, and in eight or ten days they were all above ground. About three years after this, these were transplanted on a side hill of waste ground which had lain for many years uncultivated, which was soon improved by the addition of a large grove of valuable locust trees, in the most thrifty condition.

Prof. HENSHAW put some seeds into boiling water; others he actually boiled 14, 3, 6, and even 15 minutes; he planted them afterwards in the earth, and they all sprouted and grew in half the time that seeds did which had not been boiled or soaked. When young, the plants must be protected from cattle.

Dr. DROWN, of Rhode Island, says that "the easiest method of raising the locust is as follows: Plant fifteen or twenty trees on an acre, and when fifteen or twenty feet high, run straggling furrows through the ground, and wherever the roots are cut with the plow, new trees will start up, and will soon stock the ground with a plentiful growth."

GOOD BEEF.

HORACE BULLOCK, Esq., of Rehoboth, recently slaughtered a beef which I think is worthy of being recorded in your valuable paper. It had been stall-fed with meal for about one year; age four this spring. It weighed as follows:—Gross weight, 1681 lbs.; dry weight, 1200 lbs.; rough tallow, 119 lbs.; hide, 111 lbs. The girth was 7 feet, 1 inch. The meat was sold in this city for \$8.50 per hundred, which taking into consideration the high price of all kinds of provision, was very cheap.

Providence, R. I., March 18, 1854. N. D. S.

THE EDITOR INDULGES IN A BEEF STEAK!—Beef Steaks is riz, most certainly—but we could think

of nothing else so appropriate wherewith to taste and try the *Tomato Ketchup*, of friend CUTTER, of Pelham, N. H. Beef steak, and Tomato Ketchup! Any description would be of little aid and comfort; would only "make the mouth water," without sustaining the stomach; you must buy them yourself. CUTTER prepares a small ocean of the ketchup annually, and if any body can do it better, his bottles have n't made their appearance this way. That's all!

PERUVIAN GUANO.

The notice which we have recently been led to take of various estimates of the supply of Guano at the Chincha Islands, has induced a friend to send us a statement or report, made and published in England in December last, by Geo. Peacock, F. R. G. S. The statement is founded upon a personal survey, made by Mr. Peacock during four months special devotion to the subject, in an open boat, all along the coast of Peru. His survey was made at the instigation of the Br. Government, with a promise of 1000 tons of guano as compensation, which promise, it is said, has never been fulfilled. The English holders of Peruvian bonds, secured by the proceeds of the guano islands, began to apprehend a failure of their guaranty; and hence, probably this survey. As to the Chincha group, Mr. Peacock says:—*Journal*.

"I estimated in 1844 that the quantity remaining on the northern island alone, was at least ten millions of tons; although it had been worked by the Indians from time immemorial, and although a very large quantity had been removed since the permission of its first exportation to Europe in 1841; besides the immense quantities that had been used by the Peruvian farmers since the conquest. At this time (1844) I measured the cliff of pure guano lying in a north-east and south-west direction, where it had been worked in upon from the north-west verge of the rocky basement towards the middle ridge of the island; I found it to be 85 feet perpendicular, and I calculated that by the time the workings had reached the summit of crown of the hill it would be at least 100 feet in section to the rocky base, all pure guano.

I did not examine the other two islands, merely landing on them, the deposits there not having at that time been opened upon; but Senor Villa, who examined them in 1842, declared that they contain, in his opinion, considerably larger quantities than the northern island, the middle one being the largest of the three. A rough estimate was formed that from 40 to 50 millions of tons existed on this group. Senor Don Francisco de Rivera, the late charge d'affaires of Peru in London, who was entrusted with my plans and estimates of the new guano discovered by me, found (as I was informed in 1846) that valleys filled with guano to the level of the surrounding hill of this material, upwards of 120 feet in depth, existed in the Chincha group, and that the quantity might be said to be practically inexhaustible during the present generation.

However, independent of these immense deposits on the Chincha Group, the Lobos, Guanape, Huaura and other islands upon the north-west coast of Peru were estimated by me to contain some five millions of tons of it, at least; whilst that truly

wonderful sugar-loaf shaped peninsular, the Pavilion de Pica, in the province of Tarapaca, still contains some four or five millions of tons; and whilst the Hunnillas, Chipana, Lobos, and other known guaneros on the south coast of Peru, between Iquique and the river Loa, contain some four or five millions more amongst them. Thus, independent of the Chinchas, there are some thirteen or fourteen millions of this invaluable manure still known to exist, and I am therefore of opinion that the holders of Peruvian stock need be under no apprehensions of their guarantee falling short whilst the demand for this indispensable article remains practically inexhaustible, as I firmly believe, with Senores Rivera and Villa, it to be."

PREPARING SEED CORN.

As the planting season is now near at hand, it may be useful to present such modes of preparing corn for planting, as appears to have answered the purpose desired. We therefore append two modes. The first is from O. F. MARSHAL, of Wheeler, N. Y., and the other is from a correspondent of the *Albany Cultivator*, who dates at Xenia, Ohio.—*Ger. Telegraph*.

1. I have made frequent experiments in preparing seed corn, without success, except one made last spring. I took soft soap, put some in a kettle, warmed it over the fire, put in the seed corn, and gave it a good stirring, adding as much plaster as would adhere to the corn. The corn came up good and quick, and looked vigorous and healthy. The alkali in the soap is a strong fertilizer. The wire worms did not disturb that planted with the seed soaped—that part not soaped, was injured more or less by the worms. Lest some should attribute the manifest difference between the soaped and unsoaped seed, to the plaster, I took some thick molasses, put a few quarts of seed in a kettle, as above stated; there was as much plaster attached to this seed as to that soaped. The greater part of the field was planted with seed in its natural state. The soaped seed came up the quickest and best. Will others try the experiment?

2. Take a tight vessel of convenient size, into which put the seed corn, adding sufficient warm water to cover the corn; the water so warm that the hand cannot be kept in it; stirring the corn a few times, that it may be thoroughly wet, letting it stand in the water from ten to twelve hours, then take the corn out of the water, and put it in a nice pile on the barn floor, cover it with a blanket for the space of two nights and one day, then plant as soon as possible.

My informant says (having confidence in him in this matter,) that on last year, his seed corn treated as above, came up *so well*, that he had not to replant *any*, while the *same variety*, planted on the same day, in the same field, and not treated as the above, but dry, came up very indifferently, having to be replanted.

What is still better, (says my informant,) the prepared seed came up sooner, and apparently kept a week in advance in the growth during the season.

THE END OF LIFE.—No man has a right to live solely for himself; but should live to do good, and scatter blessings all around him.

For the New England Farmer.

EXTRAVAGANT PRICES FOR STOCK.

MR. EDITOR:—Sentinel as you are on the watch-tower of the farmer, it is your duty to give the alarm, when danger is near. Within a short time, we have seen accounts of prices most extraordinary, paid for "full blood animals" purchased in England, to be introduced to this country. Instance at the sale of Lord Ducie's Stock, it is said £100 was given for a bull;—£700 for a cow;—£350 for a calf, 6 weeks old, only;—and so on;—dearly indicating a *mania* in this matter. I am pleased to see, that the Editors of the *Farmers' Companion and Gazette*, a well conducted journal at Detroit, Michigan, have cautioned their readers against such follies, page 34, of current volume;—and assured them, that as fine animals as were ever reared, can be introduced from England, at less than one-quarter part these prices. It adds nothing to the intrinsic value of an animal, that its ancestor was a Peer of the Realm. Republicans as we are, we are easily captivated by baubles. We are well assured that first class animals can be purchased and imported from England, at a cost not exceeding \$250 each.

April 19, 1854.

DO SOILS LOSE THEIR MANURES BY LEACHING?

Not often. 'Tis only the coarsest sands or gravels, and such as are almost wholly destitute of clay or vegetable matter, that permit manures to pass downward through them. Nearly all soils absorb the valuable portion of the manures which have dissolved by rains after application, before it has descended five inches. To be satisfied of this, one has only to examine the soil at the bottom of a barn-yard, and he will find a few inches only that have become at all charged with the fertile extract of the superincumbent manure.

The true source of escape is by evaporation. If only partially buried, or the soil is principally silicious and coarse, the ammonia, carbonic acid, and other fertile gases, which may have been developed by decomposition, or dissolved by rains, may evaporate from the surface or through the loosely associated particles of the soil, and pass off into the general storehouse of the atmosphere. And it is in this way nearly all manures escape from the soil. A perfect correction of this defect, is to bury the manures at a sufficient depth, and keep the soil above, well supplied with vegetable water, both living and dead.

We have seen the principle above asserted, most fully proved by the appearance of a muck heap made by compounding fish with loam. When made with a single layer of Manhadden or Moss Bankers in the middle of a heap four feet high, the oil and other fertilizing matters dissolved in the decay of the fish, has been found to mark distinctly to the eye and smell all the superincumbent mass of earth while it had not reached four inches below it. A clear understanding of the road manures travel, may aid many a farmer to arrest their progress, who would otherwise spend a large amount in unavailing efforts to secure them from their fancied escape in another direction.—N. Y. *Agriculturist*.

For the New England Farmer.

SEEDING LAND TO GRASS.

MR. EDITOR:—There are few, if any, operations in husbandry of more importance to the farmer than that of *seeding land to grass*. Nor are there many operations concerning the mode of performing which, there is more variance of opinion. Some favoring spring, others fall seeding; some contending for heavy seeding, others for light. So important and oft recurring is this operation of the farm, that it would seem strange that the best mode has not long since been decided, beyond all controversy. The purchase of grass seeds is quite an item of money expense; its failure to produce its desired return is followed by a still heavier loss in the time and labor expended in applying it to the soil, and the season's crop of grass.

The practice of seeding in the spring, with some kind of grain, generally oats, is, I believe, too hazardous and uncertain. Every farmer knows full well that one of the greatest obstacles with which he has to contend in New England is *drought*. That his grain with which he seeds in the spring is ready for harvest at a season when drought is most likely to ensue. That during the growth of the grain, the blades of grass are kept from making much if any progress; the shade of the grain rendering them weak and tender. That the removal of the grain at once exposes these feeble plants to the scorching rays of an almost vertical sun, which withers and burn them up beyond recovery. The greater portion of these plants are so small at the time of harvesting the grain, that they escape the too often casual observation of the farmer, and when the sun has burned them up, he concludes the seed was worthless, and forthwith blames the seedsman for the failure of his crop. Many thousands of dollars are thus annually lost in Massachusetts alone. I have tried this mode of seeding, and am satisfied that it is altogether too hazardous an operation to be tried the second time. Fall seeding, too, if left undone later than the first of September, is also dangerous, both from early and late freezing and thawing of the ground, which destroys the plant in its weak and feeble hold upon the soil. Summer seeding at the last hoeing of corn is in favor with many farmers, but this method of seeding, has always appeared to me, to be a slovenly mode of farming—perhaps not necessarily so, if sufficient pains were taken to keep the ground level, and to cut up the corn below the surface, which is seldom done.

Last season I determined to seed down in August having taken a crop of oats from the land, it having been planted two years with corn; having harvested the oats which stood a few days longer than was desirable, I carted on ten or cart loads of good barn-yard compost to the acre, plowed it in, harrowed and sowed herds grass, red top and clover. In a few days the land was well covered with a second crop of oats from the seed scattered in the process of harvesting, the grass came up finely and the field presented a very beautiful appearance. By the first of October the oats had got up a foot high. I turned my milch cows in for one hour a day at first, and when partly fed off, prolonged their stay to two hours. Such a field of green fodder, at such a time, proved a valuable acquisition. The grass continued to thrive, and now presents a very promising appearance. The

oat stubble left in the fall, has, I believe, been no unimportant protection to the young grass roots through a hard winter.

So highly satisfactory was this operation, that I shall pursue it again this season—sowing about two bushels of oats to the acre with my grass seed. The advantages, I deem to be three-fold. First, if your seed is good, you will be sure of not losing it by drought or early frosts; secondly, it affords an economical opportunity of applying a little fresh food for the support of your future crops, thus laying the land to grass in such good heart, that if it has been dealt with properly in its previous cultivation, it will need no top-dressing (which in my humble judgment is a most extravagant expenditure of manure, except upon low, wet lands) until it is again taken up for cultivation. And, lastly, it gives you a fine crop of green fodder at a season when it is greatly needed.

T. A. S.

Westboro', April, 1854.

REMARKS.—The subject discussed above, is an important one, and we think suggestions may be found in this article worthy of careful consideration, as great losses are annually experienced in laying down lands to grass.

For the New England Farmer.

EXPERIMENTS, STOCK, CORN, &c.

MR. BROWN:—The assignment of subjects for experiments by the Concord Club, as presented in your paper this morning, is admirable. Let each of those who engage in these experiments, make an exact minute of their operations, at the time; and let the committee who assigned the subjects, have an eye to the several parcels under cultivation, at least once a month; and a mass of information will accumulate, of more value than is ordinarily presented in the report of any of our societies.

The butter products of your neighbor's Devon stock should no longer be questioned—since it appears that Mr. Hobart's native stock has done *twelve per cent. better* than his, on ordinary feed, alone. Farmers should learn from these, and other facts recently given to the public, that by proper care, in selecting cows for the making of butter, that double the quantity of butter can be obtained from the same quantity of milk, and generally, I believe, the less the quantity of milk from which the cream arises, the better the quality of the butter.

The well drawn statement of the farmer of Pelham shows that there is a profit in growing Indian corn, at fifty bushels per acre. If the yield is double this, as has been the present season, by several cultivators in the County of Norfolk, one rising as high as 129 bushels to the acre—it proves, that corn is not only one of the most useful, but one of the most profitable crops, that can be grown. A careful analysis of these statements will show that where the hills were about two feet apart, four stalks in a hill, or *one stalk to each square foot of land*, the largest product was grown. Some excellent suggestions on the growing of Indian corn have recently appeared from the "model farmer" of Pembroke, and the "second practical farmer" of Warner. There can be little hazard

in following the instructions of such men. Their locks have whitened in the service; and although the energies of their muscles may falter, the energy of their minds is unimpaired.

April 22, 1854.

For the New England Farmer.

COOKED AND UNCOOKED FOOD.

MR. BROWN:—The communication from Mr. Howe, in the *N. E. Farmer* of 18th inst., is certainly an important one, inasmuch as the very accurate and conclusive experiment with *uncooked* meal, for the feeding of swine, goes very far to establish the question that it is better than *cooked*; a question which has been very much debated. It contravenes the generally received opinions and practice of most raisers of pork.

I wish Mr. Howe, or some other extensive farmer, would extend the experiment to the various other articles, which are usually fed to swine. The expense and labor of cooking food for swine, as usually practised, is no small item in the cost, more especially for small farmers. I shall never believe, till I see some satisfactory experiment, that the food for swine, or other stock, requires to be cooked in order to be eaten by them, or that the process of cooking imparts additional nutriment. I should rather expect that the process of cooking might dissipate, by evaporation, some of the essential properties of the articles cooked.

The boiling or steaming of hay and straw, which has been heretofore suggested and recommended, seems to me to be a wild fancy.

Shall we undertake to pamper the appetites of our cows and horses with all the refinements of a French cook? Man departs from the original intentions of nature, by calling to his aid the various processes of the culinary art. The more plain and simple his food, the more perfect is man, in all the essential attributes of his nature. Those who indulge in the gratification of a pampered appetite are not the most efficient members of the community, and the direct tendency is to depreciation; hence, the continued revolutions in the social relations of society—the lesser indulgent classes go up while the more luxurious go down. The rich cannot resist the temptation to ease and indulgence which their riches give to them, and by which they are enervated and, consequently descend in the scale of their social relations.

I had written thus much before seeing the article from Mr. Holbrook, of Vermont, in your last. He has given us a very valuable communication, on the management and feeding of swine, and of the amount of pork made by a bushel of cooked Indian meal, which he thinks is better than *uncooked* meal. This is at variance with the experience of Mr. Howe, who made a pretty fair experiment with five pigs.

As has been before said, does the cooking add anything to the material stuff?

I do not know but swine or other stock might eat a little more of some food, when cooked, than when not, or when mashed up with the more palatable, might take some articles which they would refuse when given alone. But then it becomes a question whether these articles which would be refused alone, afford much appropriate nourishment. The Author of nature has given them instincts to discriminate between what is suitable for their support and what is not.

The farmers want an experiment made which shall decide for them this question, because if nothing is gained, the expense of boilers, fuel and much labor will be saved.

I wish Mr. Howe, Mr. Holbrook, or some other extensive raiser of pork, would institute a fair and careful experiment, and give us small farmers the benefit of it.

So far as my experience has been, and the experience of many good farmers, whom I have consulted, the practice of feeding swine with all the common articles raised upon the farm, without cooking, has been pursued with success. The grains, most roots and fruits are readily eaten, in their natural state.

If there are some which swine refuse, it is probable they are more suitable for some other kinds of farm stock, and would not do swine much good if they were forced to eat them.

Topsfield, March 23, 1854.

SETTING OUT CABBAGE, TOMATO, AND OTHER PLANTS.

Last spring we saw a farmer setting out a hundred cabbage plants in the following manner. The plants were pulled up from the seed bed without loosening the ground around them, and as this was pretty compact, three-fourths of the fibrous roots were broken off. He then made a round hole with a stick about half an inch in diameter, thrust in the plant, dropped in earth to fill up the hole, packed it down, poured on a considerable quantity of water, and then covered up the plants with a burdock leaf to keep off the sun's rays, and left them to grow as best they could. We requested the privilege of setting out twenty plants for him, and proceeded thus:

First, we went to the seed bed, and with a flat stick loosened and lifted up a quantity of dirt around the roots, taking care to break very few of the most delicate fibres. We next went to the cabbage ground, and with a hoe prepared a place for each plant by mellowing and pulverising the earth several inches in diameter. We scooped out a large hole with the hand, deep enough for a plant, and set it in carefully, with considerable loose earth still clinging to it. The roots were left spread out just as they had grown, finely pulverised soil was then sprinkled in to fill up the hole, and carefully pressed down around the plant. We then added about half a pint of filthy water from the swill-pail, and requested that the plants should be left without any protecting covering. Our farmer friend said he could never spend so much time with a few plants. But mark the result.

During the latter part of summer we visited the "cabbage patch," and found that of the 20 plants, one had been injured by a careless blow from the hoe, and one had grown feebly, while seventeen of them bore large, solid heads of cabbage. Of the eighty other plants set out at the same time in the same soil, fifteen only had large heads, twenty-nine bore heads of medium size, fourteen had barely lived and were not worth harvesting, while twenty-two had not survived the transplanting.

The next best preferable method we know of to set out cabbages is, to first grow them.—*American Agriculture.*

For the New England Farmer.

LUSUS NATURÆ.

FRIEND BROWN:—Knowing that you take a deep interest in all the productions of nature, whether natural or unnatural—normal or abnormal, I will give you an account of what I have met with, which seems to partake of the *Lusus Naturæ Imprimis*. Near the Crystal Palace, in New York, a pair of oxen were exhibited, said to weigh 9000 pounds. They came from the fertile West, where animals and vegetables, having abundance of room and no lack of nutriment, seem disposed to expand themselves. The keeper said they had been accustomed to hard work till within one year. He thought they had some Durham blood, but mostly native. What a contrast between these noble looking animals, and the little rats, we often meet with in some portions of our country, which become venerable with age, before they acquire sufficient size and strength to sustain a yoke!

What man has done, man may do. Every farmer may raise good cattle; he may not make them all weigh forty-five hundred pounds each, but 't would be well if he were to aim at it.

There was also a Shetland cow, eight years old, and but thirty inches high. By her side was a calf nineteen months old, not yet weaned, nor having had a calf, though giving milk. This calf was half Ayrshire, and somewhat larger than its mother. Here is a case for dairymen and physiologists.

There were also Bakewell sheep with wool full three feet long. Query.—Why does not wool, like the covering of other animals, fall off when it ceases to be needed and becomes a burthen!

Last of all was a Jewish abomination—a pig, one-fourth Berkshire, three-fourths native, weighing fourteen hundred and seven pounds. Among the Irish tenantry, the pig, being set apart for the payment of taxes, is called the "Rent-payer," or the "Rent;"—such a "pig" at the present prices of pork would pay the rent of a larger estate than an Irish potato patch.

But obesity and monstrosity are not confined to the brute creation.

Col. Wood, of Cincinnati, has now on exhibition in this city some rare specimens of humanity,—which prove conclusively that there are extremes in human nature.

It is a common remark that Miss, or Mrs. So-and-so, is a great lady. Now the greatest lady living, Col. Wood says, is Mrs. Scholey, a native of New Jersey, now a resident of Ohio. She weighs seven hundred and sixty-four pounds; one hundred and fifty pounds more than the celebrated Daniel Lambert. Her naked arm measures three feet and two inches, and her waist nine feet and a half. Truly her husband has his arms full, if not his basket full of blessings. Mrs. S. has a good countenance, is highly intelligent, and converses with freedom and great propriety. She is of German descent; says her grandfather weighed more than four hundred pounds; has two sisters who weigh more than two hundred pounds each; and a brother who weighs two hundred and fifty pounds. She has always enjoyed good health, eats no more food than other people, and much less than a dwarf who accompanies her, and is but thirty inches in height. She has tried, by dieting and

by medical treatment, to reduce her weight—but without success. Next in this group, is Miss Richardson, of Alstead, N. H. She is nineteen years old, and weighs six hundred and seventy-four pounds; which is sixty-four pounds more than the great English giant weighed. The mother of Miss R. accompanies her, and is a small and lean woman. The father is said also not to be above the ordinary size; she rises and walks with apparent ease. Mrs. S. cannot rise without assistance.

So you see, Mr. Editor, New Hampshire produces not only great men, but great women; and New Jersey, too, may boast of women as great as any other sister State.

There is also, in this group, Mrs. Ellen Briggs, of Ohio, 32 years of age, the mother of three children, and but 30 inches in height. She is well proportioned—very graceful in form—has a good countenance, speaks English, French, and German, dances perfectly, and all that.

Now have not I proved that Nature, in the world of matter, plays some fantastic tricks? And does not every day's observation show, that in mind there are no less wonderful vagaries?

At the President's levee, on Friday evening last, I witnessed some rare specimens of animated nature without paying an admission fee.

The President seemed in good health and fine spirits. He certainly does the honors of the Executive mansion with ease and dignity.

The assemblage furnished a fine illustration of the levelling tendency of Republicanism. Jammed into the famous "East Room," side by side, shoulder to shoulder, were representatives of every grade in society. Whigs, Democrats, Free Soilers and Unionists,—Hards and Softs,—Hunkers and Progressives,—Liberals and Ramrods, military chieftains and soaplock dandies,—gentlemen and boors,—philosophers and dolts, stately matrons and coy maidens, beauty and deformity, pride and humility, wisdom and folly, Catholic and Protestant, American and European, all huddled together, cheek by jowl, in truly democratic style.

It is well that the "dear people" have access to their rulers, and well would it be, if their prudence should keep them mindful of the source whence they derive their power; and thus prevent them from enacting unrighteous laws.

Baltimore, Feb. 27, 1854.

E. B. H.

SPECIFIC FERTILIZERS.

We would suggest to our friends who are about to use guano, poudrette, super-phosphate of lime, plaster, salt, salt-petre, or any other highly concentrated manure, to omit, in all cases, the application of them on a portion of the same field, so that it may be plainly seen whether the crop is any better where they are applied than where they are not. It is only through the aid afforded by such experiments that we shall be able to come to satisfactory conclusions as to their value. It is very important for us to know, not only that these manures are valuable, but also to know how valuable they are, in comparison with the common manures of the farm. In order to obtain this

knowledge, we must not only grow crops side by side, with and without the guano or other fertilizer, but must weigh and measure the crops themselves, grown on equal portions of ground. In such a process we can obtain valuable results, whether favorable or unfavorable.

We agree with the *American Agriculturist*, that, "in applying commercial super-phosphate, which is in a finely-divided state, we do not think it necessary to mix it with any other substance, unless it is to come directly in contact with the seed. In the latter case, it should be well mixed previously, with a considerable quantity of muck, or rich earth, or even with loam.

"It is hardly worth while to apply less than 200 lbs. to an acre; on poor soils, or those of ordinary quality, 400 or 500 pounds per acre would not be too much. We prefer the latter quantity for experimental trials, though we would advise using different quantities on adjacent plots, in order to better mark the effects. 200 lbs. per acre would only allow about one pound to 218 square feet, which is a plot a little less than 15 feet square. This is only two-thirds of an ounce to a square yard. Double this quantity would be little enough from which to judge anything of its effects."

For the New England Farmer.

THE FLOWERS AND THE BIRDS.

FRIEND BROWN:—"The flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land."

So sang the great monarch of Israel, whose eyes were not too exalted to behold the beauties of nature and the exquisite beauties of the springtime thereof; whose ears were not so lofty but that he could listen, with delightful praises, to the great God who made him, to the sweet voices of the beautiful birds.

The splendid garniture of periodical birth, has again come to beautify the earth, the blithe birds have returned, bringing their sweet minstrelsy with them, to revisit the orchard, the meadow, the garden and the wood. Let them not be regarded as unworthy of the protection of the husbandman, and beneath his notice; nay, they are the friends of the farmer, and the companions of the cultivator, and "my Father made them all."

Let not the modest flowers be trodden under foot, or be passed by as a thing of nought, for they are beautiful; why then, should the farmer neglect them entirely? Rather let him cause some border to bloom with beauty; the affections will not suffer thereby, the heart will not become hardened by such labor; they will be a source of pleasure to the household, and will catch the eye of the traveller passing by; in short, where the flowers are cultivated and loved so well, stratagems and spoils can scarcely dwell.

4th mo., 1854.

There is nothing more dangerous to the virtuous than association with the guilty who possess amiable and attractive qualities.

THE THRIFTLESS FARMER.

"Stop them hogs—what in the —— the reason you didn't patch up that fence better, when you were about it? 'Stu-boy, 'stu-boy—yank 'em, Tiger, I'll learn 'em to keep out of the garden! Now fix up the fence and keep them hens out, or you'll ketch it."

Such were the ejaculations of *Farmer Thriftless*, on a bright May morning, when the hogs and hens for the hundredth time had broken into the miserable garden; but he had uttered these words as many times before, and the scene did not disturb his equanimity so much but that he resumed his seat under the dilapidated porch, and began to charge his old pipe with a new fill of tobacco. But his poor wife, whose sweet looks and sweetness of temper had been sorely tried by the confusion which had reigned supreme about her for many years, could not look on undisturbed. She loved order and quiet, and her meek and gentle spirit must soon leave the revels of creaking hinges and flapping doors, and all the wild disorder about her, for the undisturbed realms of the peaceful and quiet grave. Her last entreaty falls upon the ear of *Farmer Thriftless* like water upon the flinty rock. Young Hercules, with his club, and Tom Careless, with his hammer, were despatched in the words with which we commenced, to rout the enemy and repair damages!

Now, reader, behold them. First, the house, the Farmer, and his poor, ever-worked, heart-broken wife,—the patched barn,—the doors,—the weathervane and the roof; the stacks, horse and cattle mingled in with broken wheels and other trumpery. Then in the foreground see the fighting cocks, the skeletons of diseased cows and hogs! See Tom cock his eye and scratch his head in beholding the youthful Hercules break the ribs of the hungry pigs, and put the fowls in a tremendous flutter. There is a life and truthfulness in the scene too sad for mirth, ludicrous as it is. Will any of our friends confess that they sat for the picture! We have endeavored to improve a little upon the suggestion of our excellent brother of the *Pennsylvania Farm Journal*, and hope to receive his approval. The *Fort Wayne Times* comes to our aid, too, in the life-like portrait before us. Now "look on this picture, and then on that" which we shall give next week, and judge for yourselves of the merits of each.

The thriftless farmer provides no shelter for his cattle during the inclemency of the winter; but permits them to stand shivering by the side of a fence, or lie in the snow, as best suits them.

He throws their fodder on the ground, or in the mud, and not unfrequently in the highway; by which a large portion of it, and all the manure, is wasted.

He grazes his meadows in fall and spring, by which they are gradually exhausted and finally ruined.

His fences are old and poor—just such as to let his neighbor's cattle break into his field, and teach his own to be unruly and spoil his crop.

He neglects to keep the manure from around the sills of his barn—if he has one—by which they are prematurely rotted, and his barn destroyed.

He tills, or skims over the surface of his land, until it is exhausted, but never thinks it worth while to manure or clover it. For the first, he has no time, for the last he "is not able."

He has a place for nothing, and nothing in its place. He consequently wants a hoe or a rake

or a hammer, or an augur, but knows not where to find them, and thus loses much time.

He loiters away stormy days and evenings when he should be repairing his utensils, or improving his mind by reading useful books or newspaper.

He spends much time in town, at the corner of the street, or in the "snake holes," complaining of hard times, and goes home in the evening, "pretty well tore."

He has no shed for his fire wood—consequently his wife is out of humor, and his meals out of season.

He plants a few fruit trees, and his cattle forth-



HOMESTEAD OF THE THRIPTLESS FARMER.

with destroy them. He "has no luck in raising fruit."

One-half the little he raises is destroyed by his own or his neighbors' cattle.

His plow, drag, and other implements, lie all winter in the field where last used; and just as he is getting in a hurry, the next season, his plow breaks, because it was not housed and properly cared for.

Somebody's hogs break in, and destroy his garden, because he had not stopped a hole in the fence, that he had been intending to stop for a week.

He is often in a great hurry, but will stop and talk as long as he can find any one to talk with.

He has, of course, little money; and when he must raise some to pay his taxes, &c., he raises it at a great sacrifice, in some way or other, by paying an enormous shave, or by selling his scanty crop when prices are low.

He is a year behind, instead of being a year ahead of his business—and always will be.

When he pays a debt, it is at the end of an execution; consequently his credit is at a low ebb.

He buys entirely on credit, and merchants and all others with whom he deals, charge him twice or thrice the profit they charge prompt paymasters, and are unwilling to sell him goods at any

cost. He has to beg and promise, and promise and beg, to get them on any terms. The merchants dread to see his wife come into their stores, and the poor woman feels depressed and degraded.

The smoke begins to come out of his chimney late of a winter's morning, while his cattle are suffering for their morning's feed.

Manure lies in heaps in his stable; his horses are rough and uncurried, and his harness trod under their feet.

His bars and gates are broken, his buildings unpainted, and boards and shingles falling off—he has no time to replace them—the glass is out of the windows, and the holes stopped with rags and old hats.

He is a great borrower of his thrifty neighbor's implements, but never returns the borrowed article, and when it is sent for, it can't be found.

He is, in person, a great sloven, and never attends public worship, or if he does occasionally do so, he comes sneaking in when the service is half out.

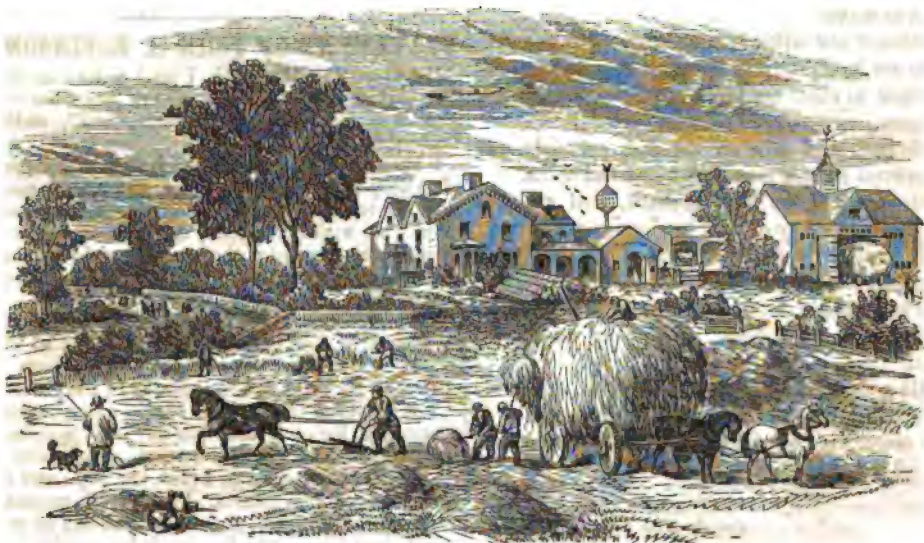
He neglects his accounts, and when his neighbor calls to settle with him, has something else to attend to.

Take him all in all, he is a poor farmer, a poor husband, a poor father, a poor neighbor, and a poor Christian.

HOMESTEAD OF THE THRIFTY FARMER.

In contrast with the homestead of farmer Slack, already presented, we now give a view of the beautiful grounds and residence of farmer Thrift. And what an attractive home it is. What an air of neatness and comfort pervades the buildings; every board is tight, and every door swings true to its place. No broken windows or dangling gates, no old pots or pans, no old carts and wheels, mar the general appearance of order which prevails. What

an animated scene the fore-ground presents! How stout and sleek are the horses—how vigorous the men—how appropriate the implements they are using! Children, reared and educated in such a home, will carry out influences with them to make the world a better and happier one. And then, to adopt the language of the *Pennsylvania Farm Journal*, the provident and thrifty farmer has three rules for regulating his business, which he observes himself and enforces on those around him, viz.: to do every thing in the right time, convert



HOMESTEAD OF THE THRIFTY FARMER.

everything to its proper use, and put every thing in its proper place.

He buys only the improved breeds of cattle, horses, sheep and swine, and keeps no more than he can keep well, either in summer or winter.

He always drives on his work and never lets his work drive him.

His animals are never under fed or over worked.

His outhouses, wood-shed, poultry house, pig pen, wagon house, spring house, and corn crib are nicely white-washed or painted on the outside, and kept clean and neat within.

He has a tool house, and a place for every tool in it, which may be wanted for any ordinary farm purposes, such as mending implements, making axe or hoe or fork handles, &c., and also for stowing carefully away, such as will not be wanted for another season.

He has sheds around his barn-yard, to protect his cattle from the weather, and warm, well ventilated stables for his cows and young stock, and also a cellar or shed, to protect his manure heap.

He has leaves or other refuse vegetable matter,

together with soil from his headlands, convenient to his barn-yard, to compost with his manure heap, through the winter.

He does not allow the liquid manure to escape into the nearest stream, a quarter or half a mile from his barn-yard.

His barn, and sheds, and dwellings are all supplied with good spouting.

His fences are always in good order, and materials for repairing or renewal, are collected and made during winter.

His wood-shed is supplied with wood, cut in August, always one year ahead.

His wife never scolds, because she never has occasion to.

Her cellar and pantry are always supplied with the needful *raw material*, which she works up into a palatable form to fill up vacuums at meal times.

Heavy bread, cold buckwheat cakes and rancid butter are novelties which her gude man and the children have heard tell of by some of the neighbors, but have never seen.

When a friend or two calls to lodge, a plate of

good ripe Rambo apples, a pitcher of cider, and a dish of boiled chestnuts, are brought for discussion around the stove of an evening.

He considers it a duty to promote the circulation of agricultural papers, and has saved himself some hundreds of dollars by following the advice of the *New England Farmer*.

His crops are always equal, and often better than any in the neighborhood, and are kept clear of weeds.

He watches the markets, and sells his crops at the highest prices.

He makes it a rule always to spend a little less than he makes.

Himself and wife are both industrious, the children are brought up in the same way, and are not allowed to shoot the birds, smoke cigars or chew tobacco.

He buys and sells on the cash principle, and thus saves himself from losses and bad debts.

He has a large fruit orchard, well supplied with every variety of fruit to ripen in succession.

He studies the *theory* as well as the practice of farming, has cleared off the last \$100 of mortgage, and is seriously talking of making a bid for his neighbor Sloven's farm, which is up at Sheriff's sale.

He goes to church on the Sabbath, minds his religious duties, and brings up his children to do the same, lives respected, and dies regretted, as a useful man and good Christian.

For the New England Farmer.

THE SEASON.

MR. EDITOR:—The season in this section of the State, if, indeed, it be not even so throughout New England, is cold and backward almost beyond precedent; the mountains of "Old Cheshire" are still habited in their garb of pure white. The cold winds whistle among the leafless trees, under which lie the snow and ice piled in wild confusion. The snow has mostly disappeared in the vales, and in sunny locations, but the hills and mountains are still clothed in white. There are but faint signs of returning vegetation, even in pleasant places; Jack Frost still holds sway over all the vegetable kingdom. Winter grain has suffered severely from the intense cold of spring, and according to present appearances the crop must be light—still it may yet revive; the powers of nature are sometimes healing, and the mild breath of summer, with the "genial shower," may agreeably disappoint the present expectations of farmers in this vicinity. I have noticed a few instances of small fruit trees being slightly injured by unusual accumulations of ice around their trunks. Just above the ground where the trees stood in an unfavorable location and were not properly banked up, the ice formed by continual thaws during the winter, and followed by immediate freezing, and this process continued late into spring, and thus by compression on the outer bark of the tree causing it to peel off. All such trees may be saved by immediately applying any adhe-

sive plaster to the exfoliated part, so as to protect it from the action of the elements. Last but not least, the spring birds came as usual, in quite a merry mood, but I regret to say, met with a "cold reception" from the elements; a violent north-easter soon dispersed them, and I fear many have perished—some have however returned, and are to-day "discouraging sweet music" from the tree-tops to all those who are favored with the ear.

West Keene, N.H., April 22, 1854. H. B.

REMARKS.—The blue-birds in this vicinity were nearly all dispersed or destroyed in the severe storm which occurred here on Saturday, the 15th, and Monday the 17th of April.

STATEMENT OF JOHN H. ROBINSON.

GENTLEMEN:—Herewith I send a statement of the yield of milk from six of my cows for the year beginning September 20th, 1852, ending September 20th, 1853.

I have selected from my stock such as I intended to keep the entire year; not, however, so much with reference to their milking properties at any given time within the year, as with the view of ascertaining precisely the average yield per day, through the year, of what may be considered good, fair milkers.

Two of them calved in September, 1852; two in December, and two in January, 1853; so that it will be seen that four of them have been in milk only for eight or nine months in the year.

The whole yield has been 16,653 gals., making an average for each cow per day of 7 quarts, 1 pint, 1 gill. The greatest average of any one of the six has been 9 quarts, 1 pint, per day; and the smallest average 5 quarts, 1 pint; all measured by the Beer Measure, about the 20th day of each month, and a memorandum made by myself of the product of each cow, separately. The milk was delivered for the Boston market at an average price of 14 cents per gal., at the barn, which would amount to \$582.82, or \$97.13 for each cow.

The feed has been, in the winter, the best of English and salt hay (half of each,) with half a bushel of brewer's grains per day a part of the time, or, instead of grains, half a peck of corn and oil meal soaked in water twelve hours before feeding. In the summer and fall, no grain, but good pasturage, with a plenty of green corn fodder. They have received no better attention than the balance of my stock, all having been fed with the same quantity and in the same way.

My rule is, when feeding from the barn, to have them fed and milked about the same time each day; say hay three times, grain twice, and water three times, the last watering at 8 o'clock in the evening, which I consider very important. In winter my milch cows are kept for the most of the time in the barn, often, in very cold weather, for two weeks together.

The cost of keeping, at the present high price of hay and grain, may, I think, be put down at about \$2.25 per week, from November to June, and the rest of the year at 50 cents; making the whole cost for the year about \$75 per head.

As such a difference of opinion prevails as to the average yield of milk from a stock of cows, I have ventured to present somewhat at length the

particulars herewith submitted, and if in the opinion of the Committee they are considered of any importance, they may be disposed of in such way as is judged best. Very respectfully,

JOHN H. ROBINSON.

Dorchester, Sept. 21, 1853.

Trans. Norfolk Ag. Society.

For the New England Farmer.

SAVE THE MANURES.

DEAR FARMER:—Although I am not a regular reader of your valuable paper, yet the interest which it advocates has a strong, deep hold on my affections. And though my present business, leads me in an entirely different channel, still I look forward with pleasure to that time when I shall throw aside the cares and perplexities of trade, and become the sole proprietor of a few acres of land, whereon I can carry out a few of the many improvements which are recommended by your valuable journal. I was born and bred a farmer, but, like too many of our young men, I thought I should be perfectly happy if I was only a merchant. But after four years experience, I should be glad to leave the noise and confusion of the city behind, and once more follow the plow.

My object in writing these lines, is, to make a few remarks to the farmers of New England, on the folly of wasting the manure made in their yards and stables. As ready money and good credit is the merchant's capital, so is good manure the farmer's best friend and capital; which if judiciously applied, will cause the soil to bring forth an "hundred fold," and amply repay him for any extra trouble or expense which he may incur.

To the farmers of my native place I would speak plainly but truly.

One-half, and perhaps more, of the farmers of that town have water running in an aqueduct into a trough or cistern in their yards, while few, if any, have a well constructed drain to carry off the surplus water.

In winter, while the manure is frozen hard, it does but little damage if the water runs into, or through the yard; but when spring comes, and the manure is thawed out by rains, or the sun, then it does do damage, and much more too, than our farmers are aware of.

When the water collects in the yard, the first thing done by the owner is to cut a ditch through the lowest part of the yard, and allow the water to run off, thereby losing his labor, and wasting his capital.

First. By allowing the water to run through the yard, carrying off nearly all the liquids of the manure. Secondly. When the sun shines warm, the manure being always wet, the farmer loses by evaporation a great part of the ammonia, which by the way is the most valuable part.

Now I would ask, if it would not be much better to have a well constructed drain, leading from their cisterns away from their yards? thereby retaining the whole strength of the manure, and do away with one evil at least.

Again. Most of the farmers throw the manure from their stables, where it is left to the action of the frost, rain and sun, until it is frozen, leached and dried, leaving the bulk, but the strength is gone.

Now I ask any candid minded man, if it would

not be much better to build a shed, at comparatively small cost, over his stable windows, so as to effectually protect the manure from the action of the elements, and allow it to retain its full strength. Another improvement would be to cart 40 or 50 loads of sand under the shed, and spread it on the stable floor two or three times a week, so as to retain the liquids, and then mix with the manure thrown from the stable. One year's trial will convince the most skeptical. H. STRATTON, JR.

Hartford, 1854.

For the New England Farmer.

BREAKING STEERS.

MR. EDITOR:—Having used many different pairs of oxen, I have many times found the necessity of their being handy, much more so than most oxen are; for it is many times inconvenient, besides being expensive, to have oxen that you cannot use anywhere, without some one to go by the side of them; and sometimes it is necessary that they should be very handy, especially in plowing, and most certainly in plowing in a young orchard, where the trees have been set but a short time. As the saying is, it is hard learning old dogs new tricks, and I think it is something so with old oxen. As there are many old oxen that never have been taught only to gee and go ahead, (unless you are at the side of them the whole of the time) I think it is necessary that there should be more pains taken to have them thoroughly broke, when they are steers, and be taught what it is necessary that they should know, before they get to be six or seven years old. Many people who raise cattle to sell when they are four or five years old, would get much better paid for them if they would thoroughly break them when young, when you can manage them more to your wish. No doubt there is a great difference in cattle about learning and understanding. I would recommend to all persons having steers, not to place too much dependence in their boys, or young and inexperienced hands at the business, for it requires judgment, and a good teamster, to break or handy a pair of steers in first rate order. F. A.

Baldwinville, March 23, 1854.

PLANTING SMALL POTATOES.

We have given no little attention to this subject for many years, and have settled the matter conclusively in our own minds, that it does not pay to plant small feed. For fifteen years we planted the same nameless variety, on the same soil, and at the end of that time found no deterioration in the quality or yield, but rather an improvement. We have invariably thrown out from our seed all potatoes less in size than a hen's egg, and also rejected those overgrown, pithy, or irregular shaped.

In some favorable seasons, and on particular soils, those purchasing and planting the small potatoes which we have rejected, have raised crops equal to or more prolific than our own; but one year with another, we have averaged thirty to fifty per cent. better crops of good potatoes, than our small potato neighbors.

What we have found true in regard to potatoes, we have also, by long practice, proved true in regard to other kinds of seed. Our plumpest and

earliest grains have always been reserved for propagation, and our neighbors can testify that our practice has been attended with good results.—*American Agriculturist.*

THE TWO ARMIES—MUSKETS AND SPADES.

Time-honored customs, that do not possess the inherent elements of substantial utility, must give way before the general improvement among mankind. The practice of keeping costly standing armies, where education and moral influence should form the great safeguard of society, is becoming a matter of less importance now than in the wretched days of feudalism. The following remarks from the *New York Economist*, present a strong contrast between the United States war-army, and one of the peace-armies in our Western States:

The United States army numbers about 10,000 men, and they cost the country last year, \$8,525,240 for pay, subsistence, clothing, etc. That is to say, \$820 per man, or if we deduct the militia expenses, \$200 per man. It would puzzle any one to tell of what service were those men, living uselessly in barracks and old forts, eating three meals per day, and turning out occasionally to touch their caps to their officers.

The Illinois Central Railroad army numbers 10,000 men also, and they receive from the company \$3,700,000 per annum, in return for which they labor ten hours per day upon a work, that gradually stretches itself through the most fertile plains, connecting the great lakes with the Ohio and Mississippi rivers, and ultimately with the Gulf of Mexico.

The relative advantages of these two armies to society present an interesting matter for study, and are graphically sketched by the *New York Post*.

The prospective building of the great Central Railroad of Illinois alone, has added to the wealth of that State, in the appropriation of real lands, the sum of forty millions, within a strip of but twelve miles in width, and the actual construction of the road will bring to a ready market millions of acres of land now owned by the general government, which, were the road not constructed, would lay waste for years to come. The Federal government employs ten thousand men at an expense of eight millions of dollars to carry muskets. The Central Railroad Company, employing ten thousand men at less than four millions, confers a vast property on the State, upon the Federal government, and upon thousands of farmers. Year after year the government spends millions of dollars, effecting nothing, and resulting in nothing but the turning loose of superannuated soldiers, made paupers by a life of idleness, to prey upon the industrious remainder of their existence,

The Illinois Company, by three years expenditures, establishes 700 miles of rails through prolific farms, many of them owned by the persons whom they employed to build the road—men of industry, vigor, wealth and intelligence. The United States, in thirty years, have spent \$200,000,000, enough to build a double track to the Pacific, and they have nothing to show for the money but some old forts, guns, tattered uniforms, and demoralized veterans.

AGRICULTURE IN NOVA SCOTIA.

We are under obligations to Mr. Brown, of the firm of Bessonet & Brown, Halifax, for a printed account of the "Agricultural Exhibition of Nova Scotia" in October last, by which it appears that the occasion was one of great interest—Some 7 to 10,000 persons attended the show, and the stock, grain, vegetables and articles of home manufacture were numerous. The spirit manifested must work out important results in the agricultural operations of the Nova Scotians. The words below are from the "Speaker's Address," whose name is not given. Beside this, however, several excellent speeches were made on the occasion.

Look around upon those tables, and see what Nova Scotia can do to reward the industry of her sons—here are proofs of luxurious vegetation, of which any country might justly be proud; here is a field for generous rivalry which will advance the interests and elevate the character of our common country. Agriculture is no mean or vulgar pursuit—it taxes the highest efforts of the intellect and brings into play all the knowledge which science has revealed to man. Cross the Atlantic, and you will find the farmers of the Mother country not inferior in point of intelligence to any people in the world. There you will find the noblest and most cultivated minds turning from the pursuits of the Statesmen—or law—or physic—and devoting themselves to husbandry; and it is a well known fact that all the American Presidents who have survived the toils and dangers of that eminent station, and many of the other distinguished public men in America have passed the evening of their days in superintending the operations of the plough. In our own country Farming is getting more and more to be a favorite pursuit, and is attracting the regards of men of opulence and leisure.

FARMERS.

Adam was a farmer while yet in Paradise, and after his fall, commanded to earn his bread by the sweat of his brow.

Job, the honest, upright and patient, was a farmer, and his endurance has passed into proverbs.

Socrates was a farmer, and yet wedded to his calling the glory of his immortal philosophy.

St. Luke was a farmer, and divides with Prometheus the honor of subjecting the ox for the use of man.

Cincinnatus was a farmer, and the noblest Roman of them all.

Burns was a farmer, and the Muse found him at the plow, and filled his soul with poetry.

Washington was a farmer, and retired from the highest earthly station to enjoy the quiet of rural life, and present to the world a spectacle of human greatness.

To these names may be added a host of others who sought peace and repose in the cultivation of their mother earth; the enthusiastic Lafayette; the steadfast Pickering, the scholastic Jefferson, the fiery Randolph, all found an Eldorado of consolation from life's cares and troubles, in the green and verdant lawns that surrounded their homesteads.

CLASSIFICATION OF SOILS.

The want of some system of classifying soils has long been felt. The arbitrary terms in common use convey no definite idea of the subject. A writer in the *Farmer's Magazine* recommends a classification based on analysis. We are not prepared to say that this mode is at present practicable, but it is at least worthy of attention. His plan is as follows:

1. *Sliceous soils*, containing from 90 to 95 per cent. of sand. These would be divided, on the same principle, into blowing sand, coarse sand, good agricultural sand, and calcareous sand.

2. *Loamy soils*; 70 to 90 per cent. of sand separable by washing, subdivided into coarse sandy loam, fine sandy loam, rich loam, and calcareous loam.

3. *Clayey soils*, with 40 to 70 per cent. of sand; divided into clay loam, clay, and calcareous clay.

Each of these soils, termed calcareous sand, calcareous loam, &c., contains 5 per cent. of lime.

Marley soils constitute a fourth group, in which the proportion of lime ranges between five and twenty per cent., and are divided into sandy marls, loamy marls, and clayey marls.

Calcareous soils contain more than 20 per cent. of lime. They are divided into sandy calcareous, loamy calcareous, and clayey calcareous. While in calcareous sands, clays, and loams, the proportion of loam does not exceed 5 per cent. The difference of composition denoted by difference of name, is similar to the sulphates and sulphites of chemical nomenclature, which contain different proportions of sulphuric acid.

According to the quantity of pebbly fragments yielded by a square yard, or by a cubic foot of the soil, they may be denominated *gravels*, or *gravelly sands*, loams, and clays.

Vegetable soils vary from the common garden mould, which contains from 5 to 10 per cent. of vegetable matter, to the peaty soil, in which the organic matter is about 60 to 70 per cent. They will be vegetable sands, loams, clays, marls, &c.

Considered geologically, soils may be classed in three groups:

1. *Local soils*, or those derived exclusively from the debris of the rock on which they rest, unmixed with materials of other rocks.

2. *Erratic soils*, containing the unmixed materials of several, and in many cases distinct formations, transported by currents of water which, at the close of what is called the tertiary period of geology, acted irrespectively of the present lines of drainage and sea levels.

3. *Alluvial soils*, composed of finely divided matter, transported and deposited by rivers and tidal currents, in subordination to the existing levels and lines of drainage.

AMERICAN FLAX GROWING.—The American Linen Company, composed of some of the best business firms in this city, Baltimore, Philadelphia, Boston, Fall River, (their mills are at Fall River,) have issued a circular to all the farmers of America, to encourage them to grow flax, which we copy in another place for the information of our readers. The Company furnish samples with prices affixed and promise to pay those prices for all the flax offered within a year; so that the grower has nothing to fear from an over-stocked market.

The American Linen Company has expended over \$450,000, and expect to make the sum over half a million, in completing the best establishment in the world for spinning and weaving fine shirtings, sheetings, table linen, and goods for men's wear. They will require two millions of pounds of lint, and hope to manufacture from half to three-fourths of a million of dollars' worth of goods per annum; and they particularly desire to do this from American flax, but at present are unable to procure a supply. It is not grown in the country. Shall this be said another year! Shall it be said that a country of such an unbounded extent of cheap rich soil must import the raw flax for its own manufacturing! There is no time to be lost. Farmers, prepare your ground for flax! —*N. Y. Tribune.*

For the New England Farmer.

TRANSACTIONS OF THE MIDDLESEX CO. AGRICULTURAL SOCIETY,

FOR THE YEAR 1853.

Although, to use the language of the Chairman of the Committee on milch cows, this society "has gone somewhat over its time," it has now "come in," with a production, full grown and well formed, which will hereafter be referred to as a model for imitation.

The Report on farms, and the statements connected therewith, using, as they do, the right words in the right place, neither more nor less, are well suited to confirm our long-cherished impressions, that this is one of the best modes, in which agricultural societies can operate, to benefit the farmer. Select a committee, who will labor, *con amore*, and go into all the towns of the county, and visit all who will receive them, and it will not be difficult, in any of our towns, to find objects worthy of being reported. It will not do to wait for claimants to come forward of their own motion—for if you do, the chance is, that many objects most worthy will be passed without notice. Real merit does not protrude itself—it needs to be sought out by those who have discrimination to distinguish it, and independence to declare truly what they find.

Having heard much of the "butter products" of this region, we were curious to observe what the "butter committee" would say of the "butter stock" of the County. Their report affirms all that has been said of Mr. Reed's extraordinary Jersey cow. It is worthy of notice, also, that of the *two cows*, to which *first premiums* were awarded for their yield of butter, *four quarts* of the milk of one yielded as much butter as *sixteen quarts* of the milk of the other. This is a difference that would justify experiments, to ascertain the principles on which butter is made. We learn that the Exhibitions by this Society have been permanently located at Concord; and that convenient accommodations have been provided by the generosity of the inhabitants of the place. This will do, so long as the border towns are satisfied therewith; but no movement should be made to lessen the general interest in the operation of the Society, or to provoke inexpedient subdivisions. Having more than once witnessed the Exhibitions, by this file leader of our County Societies, we are pleased to find it going ahead, with all the energy of youth. May its prosperity be perpetual, and

may the young men of other counties emulate the zeal and intelligence of those of Middlesex.

April 24, 1854.

ESSEX.

REMARKS.—Residing in Middlesex County as we do, and feeling a deep interest in the prosperity of the Middlesex Society, we cannot help expressing our gratification, and, in the name of the Society, its thanks, for the commendations bestowed upon it by one who has been himself the honored President of the Essex Society for many years, and a gentleman whose interest in the noble cause is not surpassed by any.

A FOX'S REVENGE.

A respectable man of the county of Montgomery resided on the banks of the Hudson river. One day he went to a bay on the river, to shoot ducks or wild geese. When he came to the river, he saw six geese beyond shot. He determined to wait for them to approach the shore. While sitting there, he saw a fox come down to the shore, and stand some time and observe the geese. At length he turned and went into the woods, and came out with a very large bunch of moss in his mouth. He then entered the water very silently, sank himself, and then keeping the moss above the water, himself concealed, he floated among the geese. Suddenly, one of them was drawn under the water, and the fox soon appeared on the shore with the goose on his back. He ascended the bank, and found a hole made by the tearing up of a tree. This hole he cleared; placed in the goose, and covered it with great care, strewing leaves over it. The fox then left; and while he was away the hunter unburied the goose, closed the hole, and resolved to await the issue. In about half an hour the fox returned with another fox in company. They went directly to the place where the goose had been buried, and threw out the earth. The goose could not be found. They stood regarding each other for some time, when suddenly the second fox attacked the other most furiously, as if offended by the trick of his friend. During the battle he shot them both.—*Murray's Creation.*

BLACK WARTS—WHITEWASH.

Black warts on plum trees should be cut out and burned. Should they re-appear, repeat the operation till the evil disappears. But this course is not always effectual. We knew a tobacco chewer to cut out a large wart on a plum tree, and taking the quid from his mouth, warm and juicy, applied it to the wound, and on that spot there was no gathering of the wart afterwards.

WHITEWASH.

Remember that whitewash is one of the finest things in the world to promote cleanliness and health. Old buildings, the coverings of which may not be worth the expense of a coat of paint, and which are so unsightly that you are justly ashamed of them in their present condition, may be made to appear almost like new work by the application of a few coats of whitewash. Fences

around the house should be washed or painted, also the interior of all out-buildings, barns, sheds, hen-houses, granaries, &c., and the walls of the cellar, as well as the overhead ceilings of the rooms in the house. A liberal use of this sanitary material is of great consequence; lime being a powerful disinfectant, and highly efficacious in promoting health at all seasons of the year. Powdered lime sprinkled over the bottom of the cellar after the roots are removed in the spring, and repeated occasionally through the season till cold weather, will prevent the unpleasant odor ordinarily engendered by warmth, and keep the atmosphere pure and sweet.

SALT AND ASHES FOR SHEEP.

Have a trough in your sheep shed or pasture, and keep it well filled with a mixture of salt and ashes—one part of the former to three of the latter.

CHARCOAL FOR SWINE.

Throw to your swine, occasionally, a handful of charcoal. Breeding sows, and those with litters of pigs, will not only eat a little charcoal, but like old bones, and will sometimes eat a bit of lime mortar as large as a hen's egg—they should, therefore, come to the ground every day.

For the New England Farmer.

SHALL I ENGAGE IN FARMING?

MR. BROWN:—Dear Sir,—Being a subscriber and a constant reader of your valuable paper, and noticing that you are always willing to answer the many questions which are proposed to you, I would like to inquire through the columns of your paper, if a young man, with a small capital, of say eight or ten hundred dollars, may advantageously engage in farming in Massachusetts! and in what part of the State could he best locate, taking all things into consideration? If you, Mr. Editor, or some of your correspondents, some of the old experienced farmers of the State, whose names we often see in the Farmer, would give this subject a little attention, and impart a little good advice on this subject, you will no doubt oblige many others beside myself. B.

For the New England Farmer.

WHY DO CATTLE EAT THE HORSE MANURE?

MR. EDITOR:—I wish to make some inquiry through the columns of your paper, in regard to cattle eating horse manure. Some of my cattle seem to have a ravenous appetite for it, as it is thrown into the barn cellar. I should think they would eat more than one half of it.

Is it a natural appetite, or do they eat it in place of something else which they ought to have? Is there anything lost in the way of manure, or is there something gained in the way of keeping? If there is a loss, what is the remedy? D. A.

Wilton, April 3, 1854.

For the New England Farmer.

GUANO—PRIVATE CORRESPONDENCE.

—, N. H., April 28, 1854.

HENRY F. FRENCH, Esq.:—My Dear Sir,—I have bought some *guano*; what shall I do with it, and how shall I do it? I want to try the experiment up here in the country, as I suppose its principal use is as a sort of genteel city fertilizer, and not adapted to the rural regions. I want to try it, on some corn, potatoes, squashes, cucumbers, &c., and I know no more about it, than I do of the Sanscrit language, and as you are *au fait* in the matter, just develop your resources, for the benefit of your race, and tell me how to make two ears of corn grow, where three would grow without it. * * *

Yours truly,

R. M.

Exeter, N. H., May 1, 1854.

MY DEAR SIR:—I am much at a loss how to reply to yours of the 28th ultimo. My last conversation with you on the subject of Agriculture, was, I think, in 1852, when you were a member of the New Hampshire Legislature, and I, as a private individual, was urging the propriety of some action by your august body, in aid of the cause, either by the appointment of a Commissioner, the creation of a Board of Agriculture, or by pecuniary assistance to the Societies.

Your views, at that time, coincided with those which have prevailed for some years among the farmers, who constitute always a majority in the Legislature of this agricultural State. You verily believed, that scientific farming is a humbug; that while in all other pursuits, advances have been constantly made, and men have been greatly benefited by diligent research, by comparing results, by making known the success and failure of their experiments, by meetings for discussion, by exhibitions of their products, by understanding accurately the nature of the substances upon which they labor—you verily believed that a farmer's father and grandfather are the only valuable authorities, and that "the traditions of the elders" are of more weight, than all the laws of nature, and all the attainments of science. In short, you seemed to believe, with Dogberry, that "to be a well favored man is the gift of fortune," but that *to farm*, as well as "to read and write, comes by nature."

And thus by the countenance, which educated men like yourself, who ought to know better, have given to the prejudices of ignorant men, against the value of accurate knowledge, in this most important department, our good old Granite State, which stood foremost in the day of battle for the defence of the soil, and which has done gloriously for the cause of education in her common schools, has fallen far behind her sister States in her zeal for the promotion of this branch of knowledge and while Massachusetts and New York and Maine, and nearly all the other States, are appropriating money liberally for this object, we have neither a Commissioner nor Board of Agriculture; and not one cent is contributed to aid the County Societies, in their desperate struggle with poverty, for existence.

But now you begin to inquire, what you shall do with *guano*. Adam and Cain knew nothing about the Chincha Islands, and our great grandfathers, consequently, left no traditions on that subject, and you really feel as if something may be

learned, even about farming. I remember an anecdote about a farmer, who had a lawsuit, and was told by his lawyer that he had filed a demurrer in his case. "A demurrer," said the farmer, "pray tell me, Squire, what sort of a thing that is!" It was hopeless to attempt an explanation of a matter so abstruse, and the lawyer would not attempt it. "Go home," said he, "my good fellow, and hoe your corn and potatoes, and feed your cattle; the Almighty never intended you should understand what a demurrer is."

Now, my dear sir, I have no doubt that you know exactly what a demurrer is, but I have serious doubts whether it was ever designed that you should know anything about *guano*, or anything else connected with agriculture. If it had been, you would not in this last half of this enlightened nineteenth century, be left in such heathenish darkness, as to imagine that anybody could in a single letter, give you the information you desire.

Not long ago, I received a letter requesting me just to take the trouble to inform the writer the best mode of planting, rearing, pruning and cultivating an orchard; and another from a stranger, who said he had accepted an invitation to deliver an address before an agricultural society, and as I was in the way of writing on such topics, requested me to suggest to him a subject and a plan for his discourse, and such remarks as might be proper. I have not had time to answer these letters yet, and it would be a still greater task, to undertake the education of a grown up pupil, on the subject of *guano*. My advice to you, is, however, to commence with the last five volumes of the *New England Farmer* and read all the articles therein contained, on the subject. You will find no less than *ten* in the volume for 1853. Then read what you find in the *Granite Farmer and Visitor* for the past two years.

But you ought to be more thorough than this, and make yourself acquainted, not only with the constituent elements of *guano*, but of the plants into the constitution of which, you intend it shall enter. Johnston's Elements of Agricultural Chemistry and Geology, is a capital work for you, and Browne's American Muck Book contains a chapter of twelve pages on *Guano*, which you ought to read and understand before you use an ounce. You would do well, also, to review Stockhardt's Principles of Chemistry, which you probably studied in college without understanding what it meant.

You will, also, find in the appendix to the American edition of Johnston's Agricultural Chemistry, some very interesting experiments with *guano* on the various kinds of crops.

Were you one of that class of the community, who believe that there is some advantage in *knowing how* to conduct farming operations, who read agricultural papers regularly, who are members of an Agricultural Society, and a Farmer's Club, and so learn what the rest of the world discovered long ago, it would hardly be necessary to refer you to so many books; but your inquiries make it quite certain that like the good lady who visited the White Mountains, and forgot to look at the scenery, you have spent your life in a country full of this kind of knowledge, without thinking to acquire it.

Allow me, my friend, a word or two more in conclusion. Should you pursue your present

idea of experimenting with guano, and find that from your ignorance of its properties and the true modes of using it, your corn never sprouts, and your potatoes do not come up till dog days, I pray you do not publish your testimony that guano and scientific agriculture have both proved humbugs, just as you expected. I read of a man once, who was advised to try salt as a manure, and he did try it, and wrote his opinion for publication in an agricultural paper. He said he was satisfied that salt did more hurt than good; that he put a *half pint* into each hill of potatoes, and half of them never grew at all, and those that did grow came to nothing.

Another man, who tried guano on his cucumbers, said that on applying it one morning to some hills already up, the vines grew so fast that he was obliged to run to get out of their way, but they kept up with him and twined round his legs so as to stop him. He then put his hand into his pocket for his jack-knife, with which to cut loose from them, and found there a cucumber gone to seed! Now, if you expect your cucumbers and squashes to grow at that rate, you will *probably* be disappointed.

Excuse me if I have herein addressed you as a person somewhat unlearned in the mysteries of Agriculture. It is manifest from the fact that you do not state in your letter what *kind* of guano you have procured, that you do not know the difference between the Peruvian and Saldanher Bay guano, although the first contains about 17 per cent of ammonia, and the latter about 1½ per cent., while the latter contains more than twice as much of the phosphates as the former, so that they are about as much alike as salt and salt petre.

I am glad to see that you are beginning to take an interest in this subject. If at any time I can be of *further* service to you in the "pursuit of knowledge under difficulties," I hope you will not hesitate to command my services.

With sentiments of the highest consideration,
yours truly,
HENRY F. FRENCH.

R. M., Esq.

STORING APPLES IN DRY SAWDUST.—I have a dark closet in my house, or rather I live in a row with windows back and front. The house is four stories high, and the length from front to back is so great, that we have three rooms on the floor, the centre dark. On the third story the floors are plaster, and I find the temperature so even that I use it for a wine-store in preference to the cellar, and have it fitted with bins. In this room I put some hampers of apples (like pearsains.) I wanted one of the hampers and turned the apples in one of the bins, amongst the dry sawdust (pine sawdust.) A fortnight ago we looked at them, having used up the others gathered at the same time, and from the same tree, all of which were much wrinkled, but on taking those off and from among the sawdust, I found them in a most beautiful condition; those covered with sawdust were as plump and fresh as when gathered; while those partially buried were only so to the extent covered with the sawdust, the upper portions being wrinkled. I am so pleased with the discovery, that I shall pack them in bins next year, for I have no doubt they will keep in this way till next Christmas.—*Ayr (Scotland) Advertiser.*

For the New England Farmer.

NORTHERN FARMING.

The following brief account of farming on the "Line" was written at my request, and submitted to me, with the privilege of offering it for publication, "entirely on my own responsibility." It is at your service, Mr. Editor, if you think, with me, that many readers of the *Farmer* will be glad to know how people live where corn ripens once in four years, or so, where apples will not grow, and where a snug little frost every month in the year is no uncommon occurrence. My brothers object to the publication of their statement, on the grounds that some of their neighbors are better farmers than themselves; that they have no big stories to tell—nothing to brag of, at all; that, beginning the world entirely empty-handed, they have not even "got a-going" yet; and that by putting themselves or their farm "into the papers," they shall exhibit more vanity than good sense. They consent to its publication, therefore, only on condition that the editor and myself will step in between them and the force of these objections.

Yours, &c.,

S. F.

Winchester, May, 1854.

Situated in the northeast corner of Vermont, about one-half mile west of Connecticut river, and extending almost to Canada line, our farm consists of two hundred and seventy-five acres; one hundred acres enclosed as a mowing field, of which ten to fifteen are cultivated yearly; one hundred acres pasturing, and the remainder woodland, on which are twelve to fourteen hundred maple trees suitable for "tapping," and plenty of good spruce and hemlock for building, fencing, &c. We purchased in 1849, and it was then considered to be in a good state of cultivation, for this section, as a stock farm.

The amount of hay cut in 1848 was about 70 tons; in 1843, 90 tons. Of grain we raised in 1852, oats 600 bushels, buckwheat 200; in 1853, oats 250, buckwheat 200 bushels. Of roots—last year (1852) potatoes 200 bushels, (badly rotted) turnips 200; in 1853 about as many potatoes, (a very light crop,) and 300 bushels ruta-bagas on one-half acre. Have measured and fed turnips and buckwheat, and we estimate turnips worth 12½, when buckwheat sells at 40 to 42 cents, and oats at 30 cents per bushel, for feeding raw to shoats, but think the best way we can feed turnips is to cattle in winter with hay—say to cows, oxen, and calves; calves we think pay best for turnips. Fall before last we cooked turnips, but could not see much advantage in it.

The great object of our cultivation here is the production of grass. For this purpose we think the best course is to keep land in tillage only one year. Spread on manure, 30 to 40 loads, (of 35 bushels,) and turn over the sward in the spring, with a furrow seven inches deep, harrow *thoroughly*, sowing the grain after it is partly harrowed; then bush it over, after which grass seed is sown, and rolled, which sufficiently covers the seed, and leaves a smooth surface for the scythe. For potatoes, land thus prepared is furrowed, the seed dropped, and covered by a light furrow turned upon the potatoes from each side of the row; cultivated twice, with very little hoeing, as few weeds start up by this process, and we find hand-hoeing

laborious and expensive. But our springs here are so short that we cannot do it all in this way. So we plow some in the fall, spread the manure on the furrows in the spring, and harrow it in. Find that manure used in this way makes the first crop better than when plowed under, but does not sustain grass as long. By cultivating only one year, and plowing under the manure we get good crops of hay from five to ten years, while oats in two or three years would exhaust the manure and soil too. The land we plant is seeded down the second year. As plenty of clover grows from seed in soil or manure, we generally sow only herdsgrass. We use but little manure as top-dressing to grass land, believing it more economical to plow it in.

We compost manure by carting into the yards one hundred or more loads of muck. Although we have no swamp or bog-meadow, we consider ourselves fortunate in the possession of the best beds of muck we were ever acquainted with. About one hundred acres of our farm is what is known in Vermont as "intervale"—lying on Leach Stream, near its junction with the Connecticut river, fifty acres of which are annually overflowed in the spring, by the melting of the great body of snow that accumulates on the hills, which are still covered by primitive forests, and frequently in the fall also. In the depressions of this low land we find valuable materials for manure. The "bed" from which we are now supplied is nearly circular, some five rods in diameter, and ten feet deep in the centre. It is composed apparently of vegetable matter entirely, no sand or grit being perceptible. The beneficial effect of this muck, plowed in just as it came from the bed, has been distinctly perceptible after twelve successive mowings. Our neighbors, who can purchase manure at the village, one mile distant, for one dollar a load, are willing to pay us twenty-five cents a load for our muck, and say they can make manure with it faster and cheaper than by purchasing and drawing. In the fall we will put into one of our yards, say, one hundred loads of muck; during the winter twenty head of cattle are yarded upon it, but seldom fed there, and in cold weather are out of the barn but a short time each day; during the summer twelve cows are kept in the yard nights, and in the fall, one year from the time it was put in, and with no additions except the droppings of the cattle, we have a compost which is worth more for crops than stable manure.

Our stock, this winter, consist of seventeen three-years old steers, twelve cows, four oxen, and three horses. Sold one cow a few days since for \$52, and reserve her calf. We give our cattle a "foddering" in the morning before light; when that is licked up they are turned into the yards, and the stables cleaned; after they have drank and aired themselves the cattle are put into the barn and fed. Just before night they are again let out, and the stables cleaned for the night. They are fed in the evening. Stock, especially young cattle, require more care here than in milder climates. We have some days every winter when it is not safe to leave our calves in the yard for an hour, if we would not have their feet and horns frost bitten. This year we have some twelve or fourteen tons of hay more than our stock will consume. Hay is worth ten dollars, which is high for this place.

We employ both oxen and horses; prefer oxen

for hauling manure, wood and hay, horses and oxen for breaking-up, and horses for raking hay and most other kinds of work.

We make butter and cheese for our own families, and \$150 to \$200 worth for sale. Find it quite profitable to raise pork at present prices.

For fencing, we consider boards with cedar posts, which are plenty here, the cheapest.

Our only orchards are maple trees. Last spring we made something over 2000 lbs. of sugar. For samples of which, the Massachusetts Charitable Mechanic Association awarded us a diploma, last fall, and the Editor of the *Farmer* a handsome "acknowledgment." As this "harvest" occurs in a comparatively leisure season of the year, we regard it as the most profitable branch of our business, in favorable seasons. We commence about the first of April, with the snow often three feet deep (by measure, not guess) and end the first of May, when the snow is pretty much gone. Back a short distance from the River, much sugar is made in May, in which month snow-shoes are sometimes used in gathering sap.

Although apples and many other kinds of fruit do not succeed well here, and corn will not ripen so as to make good yellow meal oftener than about one year in four, yet we have currants, raspberries, &c. in profusion, and a growth of oats, buckwheat and potatoes perhaps not equalled in New England. Good farmers here raise from seventy-five to one hundred bushels of oats per acre, from 20 to 40 of buckwheat, and before the prevalence of the disease, from 300 to 500 bushels of potatoes were frequently raised on our intervale. We esteem oat straw as valuable feed for stock. It grows here as high as a man's shoulders. By sowing from 4 to 6 bushels per acre, we get a fine straw that is readily consumed by cattle, especially if the grain is cut early and the threshing is not done too carefully. Last winter, from December 10, to February 15, we kept thirty-eight yearlings entirely on oat straw, and although they might not appear quite as plump as though fed on hay, we thought they did rather better in the summer than hay-fed yearlings generally do. Perhaps the straw, or the grain in it, may be more favorable to the growth of bone, than hay is.

A few years ago the farmers of this section were far from market—in fact, very much "out of the world." But now the railroads have, for all practical purposes, brought the Brighton and Faneuil Hall markets up to "Canada Line,"—and greatly increased the value of all we have to sell, as well as of that of the land on which it is raised.

SUMNER FLETCHER,
THOS. S. FLETCHER.

Canaan, Vt., April, 1854.

IRRIGATION OF GARDENS.

From repeated experiments we are induced to draw the conclusion that next to manure, the great prime mover in successful culture, there is nothing more important to vegetable growth in many cases than irrigation. Practical gardeners regard it as indispensable, and a large share of their success depends on copious watering.

Some interesting instances, which have recently occurred, may be worth stating. Two rows of raspberries stand on ground in every respect alike, except that one receives the drippings from a

wood-house, and the other does not. The watered row is fully four times as large in growth as the other. Again—the berries on the bushes of a Fastolph and Franconia raspberries were, at least twice as large when the soil was kept moistened, as afterwards when allowed to become dry; a repetition of the watering again doubled their size. Again—a near neighbor, who cultivates strawberries for market, and uses a water cart for irrigating the rows, raised at the rate of one hundred and twenty bushels to the acre, on common good soil by this means; and he noticed that where the cart was left standing over night, so that the water gradually dripped from it, for some hours, upon a portion of the plants, the fruit had grown to double the size of the rest in twenty-four hours. It should be observed that these advantages of a copious supply of water pertain chiefly to small or annual plants. The roots of fruit trees, being larger and deeper, are to be supplied with moisture in a different way; that is, by a deep, rich, mellow soil, kept moist by cultivation, or by covering thickly with litter. Water applied to the surface rarely descends so low as the roots, and only hardens the soil to a crust.—*Albany Cultivator.*

For the New England Farmer.

WHAT A GARDEN SHOULD BE.

At the end of the first article upon the garden, it was expected that the next would consider the flower garden in its beauties and varieties, but it has been neglected until now. As the warm spring hastens its steps, and the golden summer re-approaches our cold hills and valleys, the love for flowers revives; when the sap first starts, and the buds swell, even the dullest laborer gladly greets the saxifrage and violet, whilst the refined welcome them with an enthusiasm, not again awakened by any after-comers of the floral year; but, happily enough, each season has its own set of pleasures, and human sympathies, and as month succeeds month, new interests arise, till the yellow and rosy harvest; then the cold winter blasts, once more drive back into mother earth each loitering straggler of the spring's darlings.

We have seen that varied gardens have marked the world's progress, but they have ever been the peculiar luxuries of the rich and great. Not so with us; in our prosperous country, every prudent man can own a house and plot of land, and may there collect comforts and pleasures unknown to his equals in another hemisphere;—whilst the day laborer has his little corner, the more prosperous mechanic and merchant have their acres. With the land comes the question, how may it be best used? If the income is small, it is, how it may be made most conducive to the welfare of the family; and the question is generally answered by the needs or desires of the appetite, and soon fruit trees and vegetables fill the spot.

But even amongst these, there is room for a few of nature's favorites; do not judge of the worth of the possession by its monied value, and how far it will fill the purse, or gratify the passions.

Man has a higher aim than merely to live; he has a future, and must develop himself now, so as to take such a position then as he may have a right to.

There is no more sure method of ennobling the mind, than the contemplation of something higher

than ourselves, than to be not of the earth, earthy. Let us surround our families with mere utility, and they must become utilitarians; if we would make a boy close and avaricious, or their opposites, we cultivate those qualities in youth; if we would unfold his higher nature, we can only do it by offering it every inducement to manifest itself. But to leave the ethics of the subject, and come directly to the thing before us, the plot of ground, what is the first thing to be done after its acquisition? Ascertain how much land you can afford to keep free from weeds. Remember, we ought not judge a man's gardening qualities, *by the amount of land he tills, but how well he cultivates*; better quarter of an acre full of fruit and flowers, than half, where every other plant is a weed. Having decided how much land is to be kept in culture, lay the rest down to grass; then from the piece selected, allot a certain amount to flowers, but do not think any gravelly knoll or corner will answer; you cultivate them for their beauty, and *nothing is more dependent for perfection, on generous nurture*; the common mistake is, in making a flower garden, a compound of gravel walks, flower beds, and turf edging.

Abandon the idea of a *flower garden*, and substitute *flower beds*; the common method is to lay off the land into a square, or some other regular figure, and then subdivide that into ovals, circles, triangles, &c., entirely forgetting that walks fill with rubbish and must be as carefully cleaned as the beds themselves; and that the effect of mathematical divisions and sections is necessarily stiff and formal, and in every way alien to the natural beauty and grace of flowers and plants. To economise labor, if nothing else, avoid extra paths; get the flower garden surface into a thick, rich turf; dig deep, and manure well, that the grass may never suffer from drought, and then you will soon have a beautiful emerald setting for your jewels. In this turf cut out such figures as please your fancy, the more irregular the better; here arises a difficulty; the roots of the grass are ever liable to grow into the beds, and choke the flowers; to prevent this, drive down strips of slate, bricks, or even cedar poles, around the perimeter of the bed, driving them down flush with the surface, in order that the grass may cover them over, they will present an effective barrier to all vagrant roots. Next remember that the best way of avoiding weeds in the beds, like vices in the mind, is to cultivate flowers or virtues; cover the ground with them so closely, that the weeds shall have no chance.

After the beds are ready, 1st, select plants of about uniform heights to fill them, so that none shall overshadow the others, or if some must grow higher, let them be in the centre or at the back, and grade down from them with more dwarf varieties. 2nd, select according to the season—have bulbs for the spring, and perennials and bedding out plants for the summer and fall. Get all the best varieties of perennials, and next biennials, as they save the trouble of refilling the beds every year; but you may want something else for filling; to supply this want, plant the seeds of annuals, or better still, get every spring a few *Heliotropes*, *Verbenas*, *Geraniums*, *Mexican sage*, &c., from the nearest green-house; these latter are universal favorites, because they bloom steadily from the time of planting until frost, and may then be tak-

en up, potted and preserved for another year. 3d, select such a variety of shrubs as will commence blossoming in April or May, and continue till October. 4th, get the very best varieties of Perpetual Roses; far be it from me to decry the charms of the old June Roses, (those that bloom only once in the year) few better appreciate the delicate Maiden's Blush, the Crimson Damask, the Hundred Leaf, or the Provence, but I am forced to prefer the Bourbons, the Hybrid Perpetuals, the Chinas, the Teas and the Noisettes, which like the Orange, give buds, fruits and flow at the same time.

In conclusion, let these be the cardinal points in the formation of a flower garden; *have no more ground than can be kept free of weeds*; plant only such flowers as will keep continually in bloom; set the beds in the grass, and mow it often, so that the flowers may ever be prominent; get the greatest possible variety of flowering shrubs, particularly those that will commence early, and leave off late; the best shrub is that one which has not only flowers, but a fine and lasting foliage, and berries for the birds: have just as many Perpetual Roses as may be, and do not be disheartened because you cannot do all the first year; "little by little the bird builds its nest." Keep your flower beds well filled; bulbs for the spring, perennials or biennials and bedding out plants for the summer and autumn; and be, above all things, careful to keep your flower beds, &c., just as free from weeds, dirt, and disorder, as you would your day-book, for where the garden is neat and beautiful, there happiness and peace will delight to dwell, and bless the inmates of the house.

A list is subjoined of some of the best and cheapest bulbs, roots, shrubs, &c.

R. MORRIS COPELAND.

CHOICE BUT COMMON AND EASILY PROCURED VARIETIES OF BULBS, ROOTS, &c.

NAME.	TIME.	COLOR.
Snowdrops,	March,	White.
Crocus,	April and May,	Varieties.
Daffodil,	" "	Yellow.
Hyacinths,	May,	Varieties.
Jonquill,	" "	White.
Tulips,	May and June,	Varieties.
Iris,	" "	Varieties.
Stars of Bethlehem,	" "	White.
Lily, White, Blackberry.	" "	White.
Tiger, Yellow,	Summer,	Varieties.
Day Lily, (Hemerocallis),	" "	White and Purple.
Solomon's Seal,	May,	" "
Glaucolus,	Summer,	Varieties.
Dahlia,	" "	" "
Ragged Robin,	May,	Red.
Violet,	" "	Varieties.
Valerian,	" "	Variegated.
Peonies, dwarf and tree,	June,	Varieties.
Pinks and Carnations,	June, July, August,	" "
Pride of the Meadow,	" "	" "
Phlox, dwarf and other varieties.	" "	" "
Lychnis,	June and July,	Scarlet.
Monkshood,	" "	Varieties.
Campanula,	May and June,	White and Blue.
Lily of the Valley,	May,	White.
Forget-me-not,	June and July,	Blue.
Hollyhocks,	July to October,	Varieties.
Veronica,	May and July,	" "
Asters, (native sorts),	July,	" "
American Cowslip,	June and July,	Pink.
Golden Rod,	July to October,	Varieties.
Columbines,	May and July,	" "
Vervain,	" "	" "
Lythrum,	July and August,	Yellow.
Spiderwort,	June to October,	Blue.
Larkspur,	" "	Varieties.
Ranunculus,	June to August,	Yellow.
Lupine,	June,	Blue.
Chrysanthemum,	September and October,	" "

BIENNIAL.

Anterixum,	June to October,	Varieties.
Fox Glove,	June to July,	" "
Canterbury Bell,	" "	Blue and White.
Sweet William,	" "	Varieties.

ANNUALS.

Mignonette,	June to Nov.,	Green and White.
Petunias,	" "	Varieties.
Tassel Flower,	June to October,	Scarlet.
Gillyflower,	" "	Varieties.
Panicles,	April to Nov.,	" "
Amarantha,	Aug. to Sept.,	White and Red.
Asters,	Aug., Sept. and Oct.	Varieties.
Marigold,	June to Sept.	" "
Balsams,	July to Sept.	" "

BEDDING OUT PLANTS.

Verbenas,	Mexican Sage,	Lantana,	Fuschia,
Heliotrope,	Scarlet Geranium,	Ageratum.	" "

PERPETUAL ROSES.

BOURBON.	TEA ROSES.
Souvenir de La Malmaison,	Safrano,
Dupetit Thouart.	Devoniensis.
CHINA ROSES.	ATYSHIRE, (running.)
Madame Bosanquet,	Ruga,
Eugene Beauharnais.	Allice Gray.
NOISETTE ROSES, (running.)	JUNE ROSES.
Almea Vibert,	Old Red Moss,
Old Noisette.	Cabbage.
HYBRID PERPETUALS.	BURNING ROSES.
La Reine,	Prairie,
Duchesse of Sutherland.	Boursault.

SHRUBS.

NAME.	TIME.	COLOR.
Daphne Meseritum,	April,	Red.
Cornelian Cherry,	April and May,	Yellow.
Cornus Florida,	" "	White.
Cydonia Japonica,	May,	Red.
Mahonia, Evergreen,	" "	Yellow.
Lilac,	" "	Red and White.
Snowball,	" "	" "
Asalca,	June and July,	Varieties.
Roses,	" "	" "
Flowering Almond,	May,	" "
Spiraea,	May to October,	" "
Shrubby Cinquefoil,	June,	Yellow.
Shrubby St. Johnswort,	September,	" "
Privet,	June,	White.
Rhododendrons, Ev'g,	June and July,	Varieties.
Laurel,	" "	" "
Clethra,	July and August,	White.
Andromeda,	July to September,	" "
Althea,	July to September,	" "
Thorn (Haw. & Washington)	" "	Varieties.

With the above, or a selection of them, a garden may be kept in continual bloom from March to November.

R. M. C.

CULTIVATION OF THE PEAR TREE.

The principal reasons deduced by the orchardist for neglecting or refusing to plant as many pear trees as will bear some proportion to the number of his apples, and other trees, are that the first cost of the pear tree is generally more than double that of the apple; it is longer in coming into bearing; it is more liable to leaf or sap blight, &c. These objections may look formidable, but they are not insurmountable.

It is true that the cost at the nursery of 100 pear trees, is more than that of 200 apple trees; and this must continue to be so, for the expence of raising pear trees for a suitable size for market is much the greater; but when planted in the orchard they require no more attention than other fruit trees; in order to make them do their best, they require cultivation and attention far beyond what is usually extended to them.

A well cultivated pear tree is as prolific as an apple tree of the same size, and the fruit always sells at more than double the price of apples, so that the cultivator gets full return for his extra outlay for his pear tree.

It may be said that it will not bear transportation

equally well with apples; but it will be recollected that most varieties of pears improve by being gathered before they are quite ripe and allowed to ripen off the tree; if this course is pursued, the objection fails.

A very popular method of cultivating the pear is by working it upon the Angers' quince stock; by this means the tree is dwarfed and thrown into bearing at an early age.

Some varieties succeed better on the quince than on the pear stock, while others refuse to grow upon the quince unless they are double worked; that is first work a free growing variety upon the quince, then the refractory one upon the free growing pear.

Many persons appear to mistake the term "Dwarf Pear," thinking small fruit is what is meant. It is not the fruit, but the tree that is dwarf.

The best stock for dwarfing the pear is the Angers' quince. The apple is made dwarf by being worked upon the Paradise stock; and cherry upon the Cerasus Mahaleb.

For the orchard we prefer to grow the pear on its own stock, but for gardens and small enclosures we would select the best varieties that are known to succeed well upon the quince, and grow them as dwarfs.

Varieties of the pear that are late in producing fruit when worked on pear stocks, may be brought into early bearing by judicious pruning and pinching.

If the tree is permitted to branch, say three feet from the ground, and pruned into a pyramid form, leaving the lower branches the longest, and cutting back those above, it will not only bring the tree into a handsome shape, but the pruning that it gets to keep it in this shape tends to throw it into bearing. Pinching the ends of the growing branches the last of August or first of September, so as to stop the growth and ripen the wood, will cause the formation of fruit buds.—*Farmers' Companion*.

THE TOMATO.

This vegetable has now become a universal favorite, and is considered wholesome as well as palatable. It is as easily raised as a hill of potatoes, after the plants are two or three inches high—but the seeds being small, they require a little care to get them well started. They flourish on any soil where Indian corn will, and require nothing peculiar in the mode of cultivation. Tomatoes may be prepared in the autumn, as they usually are for the table, then bottled, corked and sealed with sealing wax, and kept through the year. It is not absolutely necessary to go to the expense of tin cans.

In speaking of the tomato, the *Working Farmer* says: this plant requires shortening in for early fruiting. Ninety per cent. of the tomatoes grow within 18 inches of the ground, and ninety per cent. of the vine above that point. As soon as the lower tomatoes are the size of a hen's egg, the smaller ones with the upper part of the plant should be cut off. This will cause the main part of the crop to swell rapidly and produce abundantly, while the portion removed is of no value, as their ripening would have occurred late in the season, and if

permitted to remain, would have lessened the amount of the main crop.

Early planting is true of most crops. Great mistakes are sometimes made as to depth. There are very few seeds that benefit by deep planting. Many are very scaly and light, and so feeble that they cannot emerge from the ground if placed below the depth of half an inch. This is particularly true of the carrot. Half an inch seems to be the greatest depth at which the carrot can be planted with certain success as to germination. When planted early they are more likely to germinate readily than when sown later, because the seed is so slow in germinating that the sun is likely to bake it, and in many cases the seeds-man is blamed, when, in fact it is the fault of the cultivator. We find, therefore, that carrots have to be planted early, or quite late, to succeed well, and it is preferable, of course, to plant early.

IMPORTANCE OF ROOTS.

Many consider root culture an absurdity; but the following table, compiled from reliable data, will show the fallacy of such a conclusion, so far, at least, as the nutrimental character of the several products enumerated in the list are concerned. The object is to exhibit the comparative value of the several vegetables, as ascertained by a series of experiments by BOUSSINGAULT. He remarks that in comparing the results of his investigations with the results of the practical experience of farmers in feeding cattle, he found a most remarkable coincidence between the theoretical and practical deduction:—

Wheat.....	1.91
Rye.....	2.00
Farina of Barley.....	3.02
" Cabbage.....	1.48
" Carrots.....	1.70
" Potatoes.....	2.26
Potatoes.....	1.006
Carrots.....	1.361
Cabbage.....	1.446
Turnips.....	2.383

The table from which we take the above, embraces a number of other vegetables, which, however, as they are not and probably never will be cultivated in this country as food, we have deemed proper to omit. The influence of climate, season, manure and mode of cultivation, doubtless has a tendency to vary, considerably, the value of many vegetables. Hence the results of an analysis conducted in France, might not tally, in all respects, with the results of a similar process instituted here, or in England.

But we rely more on the results produced by a careful feeding of roots and the grain to a stock of cattle through the winter, than upon tables so isolated and barren of explanation or accompanying circumstances, as are the above. Bous-singault made eight or ten experiments with roots upon several working horses, and came to the conclusion that 100 pounds of timothy hay may be taken, as ascertained by experiment, to be equivalent to

280 pounds of potatoes.
280 pounds of artichokes.
400 pounds of beet.
400 pounds of ruta baga turnip.
400 pounds of carrots.

These equivalents were ascertained in the experiments with the horses, and it appears that where they gained on an equivalent of steamed potatoes of 30.8 lbs. instead of the 11 lbs. of hay, they lost flesh on 38.5 lbs. of carrots instead of the 11 lbs. of hay.

But admitting that it does take 400 lbs. of carrots to be equal in nutritious properties to 100 lbs. of good hay, for the sake of the argument, then let us see whether it is profitable or otherwise to raise them as food for our stock.

On land that has been plowed eight to twelve inches deep, and manured as is usual for our best crops of corn, it is fair to suppose that 800 bushels of carrots shall be produced on an acre as an average crop, which, at 50 lbs. to the bushel, will give twenty tons per acre; then if the 400 lbs. of carrots are equal to 100 lbs. of hay, the 20 tons of carrots will be equal to *five* tons of hay per acre, which we must get in order to equal the carrot crop! The expense of tending the carrot crop would be greater than the usual cost of getting an acre of hay, but not much more than that of cutting, curing and getting in the *five* tons which are required to equal the carrot crop.

There is another important consideration, however, which must not be lost sight of. That the carrots perform an office beyond that of the mere nutriment they may afford, no one who has fed them out and noticed their effect on the animals using them, will doubt. There is no feed that makes the eye brighter, the skin softer and the hair sleeker, in both cattle and horses, than the carrot. It keeps up the appetite and general condition admirably. Horses, oxen, cows, calves, and sheep are extremely fond of them, and eat them greedily at all times.

In the winter of 1852—3, we fed 7 cows on good English hay, cut and mixed with one quart of oil meal and two quarts of cob-meal, per day, for each cow. In the winter of 1853—4, the same cows, coming in at about the same time, fed on hay cut upon the same ground as that of the previous year, and with the addition of 4 bushels of ruta bagas per day, but not a spoonful of grain of any kind, gave just *double* the gallons of milk that they did fed on the grain! The circumstances under which the cows existed, both winters, were alike, with the exception of temperature—the weather being much the coldest when they gave the most milk. The barn, however, in which they were kept is a very warm one, so that in the coldest weather they were always comfortable.

These facts, therefore, will have more influence in our selection of crops for milch cows, than any ta-

bles of the chemists, or any of the popular prejudices against the cultivation of roots. Our climate and soils are suited to the roots which we need in order to enable us to realize ready cash from the sale of hay, and we hope to see this summer a liberal breadth devoted to the root crop.

SPEAK SOOTHING WORDS AND KIND.

Speak soothing words and kind,
Breathe tender tones and dear,
To the afflicted mind,
In sorrow's languid ear,
Help suffering man across
Life's tottering Bridge of Sighs,
Count all things else mere dross,
But gain the heavenly prize.
Speak soothing words and kind.

Wear honor's spotless garb
All through the march of life,
Strike off the poisoned barb
Of envy and of strife;
The true reformer's song
Chant, lark-like, on thy way;
Till night wears out the wrong
And all is perfect day.

Wear honor's spotless garb.

Twine friendship's noblest wreath
Around thy brother's brow,
Who wears his vest beneath
As warm a heart as thou;
The hope, the gem, the star,
The all that life endears,
O! let no trifles mar
The friendship formed for years.
Twine friendship's noblest wreath.

Sow virtue's holy seed
O'er the heart's fallow-ground,
Eradicate each weed
That e'er springs up around;
Spread gospel news about,
Where'er thy feet may roam,
Till all mankind may shout
A joyful harvest home.

Sow virtue's holy seed.

Mark Lane Express.

For the New England Farmer.

HIGH PRICE OF BEEF.

MR. BROWN:—I notice in your paper, in remarking on the Cambridge and Brighton Cattle market, that drovers are paying exorbitant prices for cattle and sheep, and that the butchers are determined not to support them in so doing any longer—it is wisely added, if they can help it.

If these men would come into the country where their good beefs are fattened, and learn the high price of the food they consume, also the high price paid for almost every article of food for man, they would admit that they would more likely have to pay higher prices than lower. The farmer that sells his cattle for \$7 per cwt. now, do his best, cannot get as much breadstuff as two years ago, when he sold his beef for \$5 per cwt.

I live in Stanstead, Canada East, where there are hundreds of head of good oxen ready for market. A few of your cattle buyers have been here where they used to purchase our beef cattle for Boston market; but the result is, they go away, saying the duties are so high that they cannot purchase—the duties being \$20 to \$40 on a pair of

good oxen. If the cattle dealers would have cheaper beef, let them try to reduce the duties, and Canada will supply your market with good beef at present prices for a time at least.

Yours,
W. PIERCE.

Stanstead, March 21st, 1854.

STICK TO THE FARM.

BY HENRY F. FRENCH.

Stick to the farm, young men. Now when land and its products, the true wealth of the nation, are within your control—when corn and wheat, and hay and cattle, and the produce of the dairy, bring double their former prices, while the wages of farm labor, always the last to be affected by fluctuations of business, or political affairs, have advanced comparatively little; now, when the nations of the earth are re-converting their plowshares and pruning hooks into swords and spears, when great armies are gathering together to destroy each other, and lay waste the beautiful earth, which God has given to man to "till and to keep;" now, when the labor of whole countries is diverted from producing the means of feed and clothing and sheltering and blessing mankind, to a worse than idle consumption of the produce of your labor; now while the farmer is rapidly gaining the respect and wealth and influence due to his position as "lord of the land," be not seduced from your honorable and independent place, by whisperings of ambition, urging you to seek for wealth or ease, or honor, in a city life.

You are tempted to exchange the hard work of the farm, to become a clerk in a city shop, to put off your heavy boots and frock, and be a gentleman, behind the counter! You, by birth and education, intended for an upright, independent, manly citizen, to call no man master, and to be no man's servant, would become at first, the errand boy of the shop, to fetch and carry like a spaniel, then the salesman to fill the place which at best, a girl would fill much better—to bow and smile and cringe and flatter—to attend upon the wishes of every painted and padded form of humanity—to humbly suggest to rakes and harlots, as well as to starched and ruffled respectability, what color and fabric best becomes the form and complexion of each—and finally, to become a trader, a worshipper of mammon, as Carlyle says, "a kind of human beaver that has learned the art of ciphering," compelled to look anxiously at the prices current of cotton and railroad stocks, in order to learn each morning, whether you are bankrupt or not, and in the end, to fail and compromise with your creditors and your conscience, and sigh for your native hills.

Or, perhaps, your party being in power, you would obtain a clerkship at Washington, and remove your little family from the north, to a more genial climate, to live at your ease, and grow rich on twelve hundred dollars a year! You give up your little farm, your New England privileges of schools and churches, your independent and influential membership of parish, and district and town and church, the woods and play-grounds for your children, your friends and kindred and home. Twelve hundred dollars is a large sum to you, half the price of your farm perhaps, twice the amount of the minister's salary. With your habits of economy and thrift, you can live on half the

amount. Your arrangements are to be made. The homestead is sold, and you are *landless*. After all, it is not so easy parting with our household gods. The trees our hands have planted take root in our hearts, the vines and roses, twined by our own fingers, and those of our loved ones, over rustic arbors, cling round us more closely than we thought. Your labor has been mingled with the soil of every field. Tears are in the eyes of your wife, at every thought of departing, but she trusts in your superior judgment, and no murmur escapes her lips at your decision.

You have left your home. At the end of a single year in "the city of magnificent distances," you have bitter realizations of the meaning of that phrase. It has proved indeed to be full of magnificent distances, for you, from happiness, from independence, from advantages of every kind. For the first time, you have felt how sore a thing it is, for a northern freeman to be dependent, to labor at stated hours, at the bidding of a superior officer, to feel that the office you fill, on which depend your very means of living, for yourself and family, is held at the arbitrary will of another, who may, if he please, make a servile conformity of your views with his own, on political or what you may deem moral questions, the condition, by which you retain your place. You, who at home, had never seen the man who dared claim to be your superior, are forced to submit to the iron rule of caste, to send your card to the Secretary, whom you once knew perhaps as an equal, and wait an hour, with the colored servant in the hall, to be told at last, to call another day—to be slipped over, or shaken off by the "member" whom you helped to elect, and who had now no further use for you; and consume your energies in endeavoring to keep the toe of your boot from proximity with that part of his person, where his honor holds its seat—to be assessed to support party presses, whose principles you may despise. In short, you have sold your manhood for an office, your birth-right for a mess of pottage. But the half is not yet told, for the mess of pottage, even, is not sufficient for your wants. Your salary is at starvation point. You must pay two hundred dollars for a house, with two parlors and a basement for servants, without a cellar, without a closet, without a pump or aqueduct, without a sink, or clothes-yard or garden. Your wife with the aid of a servant, cannot do the work so easily as she did it alone, at the north. All the water comes from the city pump, a dozen rods off, in buckets; the slops are poured into the street, your clothing is crammed into wardrobes, your supplies must be procured daily at market, in contemptible quantities—in short, everything, except the parlors, which are for show, and to make you seem respectable, must be richly carpeted and curtained, everything else is adapted to the idea, that labor is degrading, and that the comfort and convenience of those who perform it is not worth consulting. The thrift, and energy and comfort of northern households, is unknown in this latitude.

Look now, at the prices of necessary articles of food. On your farm, however small, your cellar was always filled with an unlimited supply of all such vegetables, as you desired, and barrels of beef and pork of your own slaughtering. Your granary had always as much of corn and rye, and perhaps of wheat, as you chose to use. Your

cows gave you milk and butter in abundance at all times, and your garden and orchard, fruits for yourself and the children, and the neighbors, without stint. Now, (I give actual market prices in Washington) you buy one peck of potatoes for "three levies," or thirty-seven and a half cents, beef at sixteen cents a pound, turkeys at from one dollar and quarter to two dollars each, chickens, with the shells scarcely off their heads, not larger than robins, at twenty-five cents each, butter at thirty-one cents a pound, and milk at eight cents a quart, and so on to the end of the chapter. Instead of enjoying the abundance of the earth, as you have been accustomed to do, you begin to associate the idea of dollars and cents, with the food on your table; you are compelled to vex yourself with economising in the details of living, instead of by system, and to feel your soul gradually narrowing in, to a conformity with narrow circumstances. You find yourself a poorer man than while upon your hard northern farm, poorer in your animal means of living, poorer in comparison with those around you, poorer in independence, in prospects for the future for yourself and family, poorer in everything.

We might follow this train of thought into further details, did time allow it, but enough, it is hoped, has been said, to induce an independent Northern farmer to hesitate long, and consider well, before he exchanges his position for any place, where any *master* comes between him and his Maker.—*Country Gentleman.*

For the New England Farmer.

PROFITS OF FARMING.

MR. EDITOR:—Your correspondent "D. C." may think my answer to his "No. 4" too long delayed; the delay is for want of time only. I did not by my question expect to compel him to use up so much of his time or your paper—as the question is so "extremely indefinite" as "to be no question at all," as "the profits or amount of produce," are so "nearly the same that no argument can be instituted between them," as the question is "logically absurd," and as he nevertheless concluded to waive all objections and answer it, he might have done so with less labor to himself, or less use of your valuable paper. But without running into the same error, I well know, and of course shall admit that the "profits of farming" depend much on the "amount produced," yet they do not entirely; the quality of the products, or the state of the market, has much to do with it. Why is it that New England peaches sell better than New Jersey ones? Is it not because they are better, and if they are not better, because more are raised here than there? And were not our peaches better than those of New Jersey, we could make nothing comparatively by raising them, and yet this difference secures to the peach growers nearly all their profits.

Again, it sometimes happens that the supply is so much greater than the demand, that nothing or next to nothing is made. Take the same article: I know of many farmers in this vicinity, and I presume your correspondent knows more than one, who could not give away their peaches last year, and bushels were fed to the hogs, or rotted on the ground, and bushels more were sold for the lowest prices, just what was offered. So in

other things—a few years since, Vermont farmers were all getting rich by raising wool; they enlarged their farms and their flocks, and raised not only more, but more relatively to their acres. What was the consequence? They kept their wool on hand, and the greater the amount of the product the less the profits.

Again, there may be two farmers side by side, and their crops may be equal in amount, and yet one will make much larger profits than the other—he will *sell* so much better, that he will outstrip his neighbor entirely—and no one will deny but that this *selling* is one essential part of farming, or that without a tact at this, a man is no farmer at all.

Two farmers in the same town may have farms which are adapted to different products; one may be able to get a much larger crop than the other, and yet the small crop may be the most profitable, for the reason that the demand for that is enough greater to make all the difference, perhaps more. Now we can, in many respects, produce articles of better quality here, than at the West; we raise better corn, pork, butter, cheese, tobacco, fruits, and probably garden vegetables, and it may be some other things. Indeed, the West cannot compete with us in the quality of farm products generally, if they can in any particular; a moderate share of information makes this too obvious for argument—nor also get as high a price. All will admit that we get a higher price for all or nearly all our products. How then can we make as much? I do not mean, nor is that the argument, whether a man here can make as much on one acre, as a Western farmer can on two. It is simply which of the two, taking the whole expenses into account, will have gained the most money.

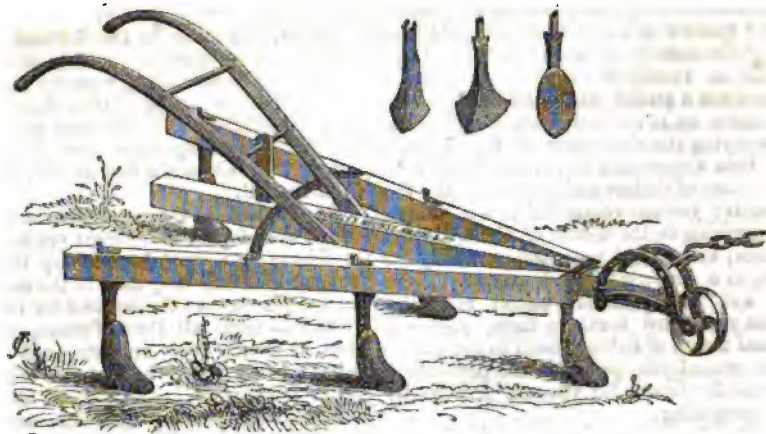
Now this has been ascertained as nearly, perhaps, as it is possible to do, and you have published the whole thing in 1854, and subsequent information has not, that I have seen, essentially changed this. It will then be seen that the decision of this question is clearly in favor of the New England farmer. In some articles, such as wheat and corn, the Western farmer will receive more, for he will cultivate more acres; the population is sparse there, and he has room to do it; while here, farms are small because the population is dense, and yet some of these small farms have enriched their owners, much more than Western farms; it may not be in corn or wheat, but in other farm products to which the land is adapted, and this is the highest evidence of our ability to compete with Western farmers; and even in the articles of wheat and corn, there are cases in New England of farmers raising as much per acre as in the West. But your correspondent says he did not mean that we could not compete with farmers at the West under any circumstances and he admits that with certain *helps* we might even exceed them; but does he not see he is in a circle? and that he might as well say at once, that we can compete with, if not exceed them.

I do not think I should have noticed "D. C.'s" article but for two reasons—one is that it was calculated to prejudice our young men against farming, which is the most natural, moral and healthy employment, and when conducted with skill, has proved the most lucrative in the end; another reason is, that it was calculated to discontent men with New England farming. Our citizens have

long been in search of the promised land, and yet nowhere is there such highly cultivated land, and Western men, when here, seem to think, as I have heard them say, that they know nothing about liv-

ing. There was only one Eden—there is only one New England, and it is not best to permit any spirit to make the dwellers discontented with their homes.

AGRICOLA.



EXPANDING AND REVERSABLE TOOTH CULTIVATOR.

As the season opens upon us, and the land is becoming fit for the plow and other implements used for lightening it, we wish to lay before the reader such improved forms of them as have come to our knowledge, and as we believe will be pleasant and profitable for him to use. The plow and horse-hoe have been already given this spring, and now we introduce the *Expanding and Reversible Tooth Cultivator*. We prefer the Horse-Hoe to any implement of this kind, but some may choose the one represented above. The expanding implements will become more or less loose and rickety, and are inclined to run out at the sides, making them hard for the person who holds them. The Horse Hoe runs straight, is easily guided, and by running it twice in the row, that is, out and back in the same row, will accomplish more good work than any other implement we have ever used.

The implement figured above is highly approved by some farmers. The points or shares of the teeth are made of steel or cast iron, and are fastened to the shank or standard by bolts and nuts, so that either kind of shares may be used on the same standard, cheaply replaced when worn, and one substituted for the other. The shares being also reversible, are thereby very enduring, as when one end is too much worn to be effective, they may be changed to the other end down, and a double amount of service obtained.

The tooth represented at the left, in the figure of teeth detached, is made of all steel, and known as "Roger's Patent," and may be used, but requires a different mortice; the centre tooth is cast iron, and fits the same mortice as the steel

pointed above described. The various teeth are furnished separately.

MULCHING GOOSEBERRIES.

In the August number of the *Western Horticultural Review* we find the following letter from Mr. John N. Brower, of Lawrenceburg, Ind., on the subject of mulching gooseberries:

I beg your acceptance of a small sample of gooseberries from my garden, which, from their fine size and flavor as well as their perfect freedom from rust or mildew, will prove that, by proper cultivation, this delicious fruit may be raised with perfect ease and in the highest perfection. I remember, several years since, while you were visiting us, that you suggested the use of soap-suds or some alkaline wash, as a remedy for the mildew or blast which has so generally affected this fruit, and for the preservation of which many applications had been used but without success. I tried them all, but in vain; scarcely a berry out of hundreds would escape the rust, and many of my bushes dwindled and became worthless.

Some years ago, observing the extremely luxuriant and profuse growth of the off-shoots or suckers, in the early spring and during the fruiting season, which the gooseberry bark put forth, and that the rust never made its appearance until they had attained some size and in such quantity as to abstract a large proportion of the nutriment afforded by the root, an idea, occurred to me that the diseased condition of the bush and fruit was the result, not of moisture, or sun, an insect ravager, or want of adaptation of soil, but simply a lack of nutriment, or, in professional phrase, an atrophy of the plant and fruit, by reason of the large proportion of sap consumed by an useless amount of woody fiber and leaf, and which was necessary for the full and perfect development of the fruit. Acting upon this impression, I pruned very liberally, and throughout the fruiting season leaving no more wood than what bore fruit, and carefully removing all shoots having a light green

color and very rapid growth. My success has been perfect, and whether in the open sun or under shade, I never fail of an abundant crop of fine fruit. My only preparatory cultivation is mulching the bushes with rich compost every winter and spring. The bushes from which these two varieties are plucked I obtained from our friend Elliott. I have lost their names.

THE CULTURE OF ONIONS.

MR. EDITOR:—My success in raising onions, has led many to ask "how it is done." They say the maggot and the large brown worm have been so destructive that they have done trying to raise that valuable vegetable. In answer to such inquiries permit me to reply.

There are at least six kinds of onions. But they are of the same species. The leek, the garlick, the hill-onion, the top onion, the red and the silver onions. From the fact, that whenever onions have been found growing wild, they are always found most plentifully and most flourishing in muck soil, I have taken the hint to prepare my onion bed with a plentiful supply of muck first put into the hog-yard, and then well mixed with common soil. If I plow the ground, I take care not to have the ground too light. As the roots of onions do not go down deep, they will not stand drought so well in light as in more compact soil. Besides onions bottom better where the ground has been rotted or hard trodden.

I cultivate the "top onion" for several reasons. All black seed onions are slow to come up. The weeds get the start of them and then you are obliged to get down on your hands and knees and weed with your fingers. Then warm weather has come on and the maggot fly commences with the young and destroys it. And the black seed onion is so late that the black worm is just in season to bite off the tender stalk, and so devours the onion.

But plant the "top onion" seed, which is already a little onion, you may get them well growing in April. They come up immediately, so that you may hoe them twice or more before weeds appear. And before maggot or worm time, the onion has got the ground by possession. When the weeds appear, you may march right along with your hoe and go over with a bed large enough for twenty bushels, before breakfast.

The reason why maggots have ever destroyed the top onion is, that they were planted too late. They should be planted as soon as the snow and frost disappears. Some put out in the fall and do well. I have never tried it. The top onions on good ground are large as any. They are sweeter and more juicy than other varieties, and can be raised as easy as potatoes.

I have given away and sold seed for several years; and when the experiment has been fair, all have been satisfied. I intend to give away and sell before April, twelve bushels of seed. S. MORGAN.

Bristol, Vt., Jan. 13, 1854.

Middlebury Register.

HOW TO TELL THE HEIGHT TO WHICH A COLT WILL ATTAIN WHEN FULL GROWN.—When the foal is three or four weeks old, or as soon as it is perfectly straightened up, measure from the junction of the hoof with the hair, to the middle of the knee-joint, and the number of inches will be the

number of hands in height to which the colt will grow. Thus, if the measure is 16 inches, the horse will be 16 hands high. This rule, it is said, will hold good in nine cases out of ten.—*Indiana Farmer.*

HOW TO PLANT CUCUMBERS, MELONS AND SQUASHES,

TO AVOID DESTRUCTION BY BUGS.

As the cost of seed is trifling, we have for the past few years always succeeded in getting good vines by the following process. Instead of planting a few seeds in hills at the distance they would ultimately be required to grow, we have put in a large quantity over the whole ground; so that at first we had a hundred plants where only one was needed. Sometimes we have had a plant come up on every two inches over the whole bed.

As fast as the expanding leaves of the vines interfere with each other we cut off the weaker ones with a pair of shears, so as not to disturb the roots of those remaining. The "bugs" have always materially assisted in the thinning process, but we have never failed to find twice or thrice the needed number of plants entirely untouched. When beyond the reach of danger from insects, all the weaker plants are removed; and a solitary vine left here and there has been enough to cover the ground.

The same ground will yield much better, by having the vines at equal distances from each other, than if two or three are left together in the same hill, since the roots have more room to grow, and they find a greater amount of nourishment when thus isolated. The fruit will also be more solid and of better quality.

It should also be remembered that air and light are essential to the growth and maturity of the fruit; and it is better to occasionally cut out a thrifty plant, than that the ground be too densely covered. Just vines enough to thinly cover the ground, will produce better than double this number.—*American Agriculturist.*

For the New England Farmer.

FERTILIZERS.

The preparation and application of manures is the foundation of all successful culture. This is particularly true on the long used fields of New England. Most cultivators direct their attention to the crop of the season, with little or no regard to those which are to follow. In this respect, our modes of culture vary essentially from the modes best approved in Europe, where the aim is, while one crop is growing, to have the land made better, for that which is to follow.

Without the application of fertilizing materials, in some form or other, it is in vain to expect abundant crops. Plow and pulverize as much as you may, it will not grow the plants, without some additional stimulant. The question then is, how shall these stimulants be obtained in quantities sufficient to give fertility to the entire farm.

Look about among the farms, and their products will be found very nearly proportioned to the manures used thereon. And when the manure is itself the product of the farm, either by saving, composting, or otherwise, then it is the main-spring of profit in the farming operations. Con-

sequently he that best succeeds in preparing manures, is most likely to be the most successful farmer.

In farming, like all other pursuits, there are always those who are seeking some shorter road to the point of destination. For this purpose, many kinds of condensed fertilizers have recently been introduced—and often with results most striking. We have heard of many such by the application of *guano*. But whether this can be brought within the command of farmers of small means, we are not distinctly advised. That it frequently operates well, on the crop of the present season, there can be no doubt; but whether it will need to be, or bear to be repeated year after year, remains to be demonstrated. So with many of the chemical combinations of substances now in the market. Many of these contain the power of giving a vigorous start to growing plants, but what will be their lasting operation upon the soil, remains to be seen. The effects of a liberal dressing of well prepared manure from the stable or barn-yard, are seen for years, and can be calculated on for a certainty. If such be the fact, in relation to the improved fertilizers, it is important to be known. That it is not, I am not prepared to say;—that it is, I have not seen anywhere distinctly shown. On this point instruction is much needed.

GREEN CROPS FOR BARN USE IN SUMMER.

It is the great number of cattle that a British farmer keeps on his farm, which by furnishing so much good manure, enables him to raise such good crops. The turnip crop, occupying one-fourth his farm, furnishes him the grand means of keeping so large a stock during the winter months; and the practice of soiling his horses and cattle, enables him to keep more animals than he otherwise could during summer.

By soiling, is meant the system of feeding cattle in sheds and stables on green food grown for the purpose, instead of allowing them to graze the fields at pleasure. That more food can in this way be obtained per acre, few will question. That we can adopt soiling, except in some few cases near large cities, admits of some doubt. One of the great objections to the practice is the greater amount of labor required in mowing and carrying to the barn the green food, than in letting the cattle cut it themselves. Another objection is that our climate is not so well adapted for the production of succulent summer food as the cool moist climate of the British isles. Yet, as we have often said, we obtain heavier crops of red clover than do British farmers, and red clover is there considered one of the best crops for soiling purposes; and could it be grown with as much certainty and in such quantity as in Western New York, it would be much more extensively used.

We believe it would pay every farmer to take an acre or two of clover, as contiguous to the barn as possible, and manure it highly in the fall or spring. It would be found of great advantage to cut and feed to the horses in the stable at noon, and for an hour or so before turning them into the field in the evening. A few acres so manured and cut early, would afterwards yield a splendid crop of clover seed; or it might be mown twice, as green food for the horses and cattle.

Indian corn is perhaps the best food that we can grow for green food in summer. It stands drought better than any other crop; and if the soil be rich, an immense amount of nutritious food can be obtained per acre—certainly more than from any other summer crop. For this crop the soil should be either naturally very rich or be well manured. Let it be prepared as you would your other corn land. The deeper it is plowed, and the mellowed it is made, the better. Four bushels of seed should be sown broadcast per acre, as soon after corn planting as possible. If the soil is moist and in good, fine order, soak the seed corn for twenty-four hours previous to sowing. In this way it will be up in two or three days, and will get the start of the weeds; and if the corn is sown thick, and grows well, it will smother them all, and leave the land in good condition for the following wheat crop. Perhaps, however, it would be best to sow the corn in rows twelve or fifteen inches apart, and hoe it once or twice; the corn would grow more rapidly, and the soil would be cleaner.

Lucerne answers well for soiling purposes, but its cultivation is attended with considerable labor in keeping the soil free from weeds. It is a perennial plant, and does not reach its full growth till the third year. On a rich, sandy loam, well underdrained, plowed, and subsoiled, immense crops of lucerne can be grown. Guano is a splendid manure for this crop, and possesses the advantage of being free from weeds. Lucerne is sown early in spring, in rows from one to two feet apart; eight or ten pounds of seed per acre. It must be frequently hoed and kept free from weeds, and should be cut but once the first year; in after years it will afford three or four crops in a season.

REMARKS.—This article, from the *Genesee Farmer*, calls attention to a subject of considerable importance to us at this season of the year. In most parts of New England the drought has been severe for three seasons in succession, and the cattle have suffered much for want of grass. Many of the pastures are too rocky to be worked and the feed on them, therefore cannot be increased much by any means that we are at present aware of, beyond what they have heretofore afforded. The deficiency must be made up in some other way, and we know of none so easy and cheap as the cultivation of the southern flat corn. We would recommend that it be sown in drills, rather than broadcast, and cultivated, in all respects, in the same manner as our usual corn crops are treated. The butter-maker and the milk-seller who have relied on their scant pastures, will find their profits handsomely increased by feeding out this crop.

HINTS TO THE FARMER.—Keep your enclosures in good repair. If a post or a stake rots supply its place with another before it falls and introduces your own or your neighbor's cattle into your corn or wheat field. Stone walls are the most valuable of all enclosures, where one has the materials for erecting them, or where they can be obtained within any reasonable distance, walls are cheaper than any other fence that can be constructed. A farm, surrounded with good walls, may be regarded as

enclosed for all time; the materials, although the walls may fall, or be thrown down, never decay. Next to walls, we may mention-stump fence as the most valuable species of field enclosure. Properly constructed, on land that does not "heave," they endure for generations, and ordinarily subject the farmer to but little expense for repairs. Hedges of thorn are also valuable, and produce a most beautiful effect upon a landscape. They are also very durable and efficient.

EXTRACTS AND REPLIES.

CUTTING OFF CATTLE'S TAILS.

MR. EDITOR:—I wish to inquire through your paper whether it is necessary to cut off the end of neat cattle's tails every spring! Will you please to explain what the effect is upon them? I am young and inexperienced in such matters.

Keene, N. H.

J. W. N.

No—the practice of cutting off the tails of neat cattle is not necessary; it is a barbarous relic of which this age ought to be ashamed. It is a cruel mutilation, causes a wasteful loss of blood which is again to be supplied by your grass, hay and grain, and deprives the animals of the means which nature provided to protect themselves from the insects which annoy them. Why did He who formed them furnish a long tail, so admirably provided with a brush at its end, but for some good purpose! The advocates of this shameful practice may say that blood-letting is necessary—that the end of the tail becomes soft, and that unless it is cut off the animal will sicken and die. But such reasoning is nonsensical, and the effects of an old superstition; you might as well cut a man's leg off because the end of his great toe is soft by the irritation of his boot.

There is a mania among the hired men to cut off the cows' tails, and their arguments are wonderfully strengthened by the recollection, that if the tail is only a foot or two long, it will not be very likely to come into their faces while milking. The superstition has had its popularity altogether too long.

There is a sickness not uncommon among cattle soon after they are turned to grass, which is probably occasioned by a sudden change from dry to succulent food, and at the same time from a dry and warm temperature to cold winds, storms, and exposure to the night air. The hind limbs are affected, sometimes the joints swell, and there is a trembling and a giving way, so that the animal can scarcely drag itself along. In England, it was supposed that the origin of this difficulty was in the tail, and was called *tail-ill* or *tail-slip*, and has come to us under the expressive term, *tail-sick*! Mr. Dick, of Edinburgh, has taken up this subject in a very interesting point of view, in the *Quarterly Journal of Agriculture*. He says—

"The farmer and the cowleech believe that the mischief passes along the cow's tail to the back, and

that it is on account of something wrong in the tail that she loses the use of her legs; and then some set to work and cut the cow's tail off; while others, less cruel, or more scientific, make an incision into the under surface, and allow the wound to bleed freely, and then fill it up with a mixture of tar and salt, and we know not what.

"In some parts of the country, the practitioner is not content with this treatment, but supposing there is witchcraft in the business, he has recourse to some charm in addition to the cutting and dressing. This charm consists in binding a small piece of the rowan tree on the extremity of the tail, and making a black cat pass three times round the cow's body, over her back, and under her belly, (which if it happens to be a strange cat, as is often the case from the necessity of the color, being black) so enrages the animal, that she mews and scratches with all the fury to which she is so easily excited, until she escapes from the hands of the necromancers, leaving them convinced that the devil has got into the cat.

"The disease, in ordinary cases, is said to consist in a softening of the bones about the extremity of the tail, and is to be distinguished by the point of the tail being easily doubled back upon itself, and having at this doubling a soft and rather a crepitating kind of feel. But what is the real state of the case? The tail is lengthened out to the extent of about three feet, and is formed like a common whip. Towards the extremity, the bones terminate gradually, becoming insensibly smaller as they proceed downwards. At this part is said to be found a soft space—the *tail-slip*. Beyond this again, a firm swelling cartilaginous portion is found, covered with hair to brush off the flies within its reach. Now why have we the long column of bones; the termination with a soft space of a few inches; this thickened, hard, cartilaginous part at the very extremity, and that extremity covered with hair, but with a view to form a whip to drive off, and with the greatest possible effect, the insects which wound and torment the animal?

"Here the column of bones forms the shaft or handle of the whip—the soft part, the connection between the handle and the thong, while the thickened extremity may be easily recognized to represent the thong, and the hairs to form the lash, or point; so that we have a whip to drive away the flies, and so complete a one, that the coachman may borrow a lesson from its construction.

"We trust, therefore, that our readers will never be found again looking at the tail of the cow for an explanation of palsy, or any other complaint; (for we believe this *tail-slip* is supposed to be connected with various other maladies;) but we will allow them to examine it once more, in order to admire its adaptation to the purpose for which it is required, and the peculiar contrivance of this supposed diseased part, for the more effectual accomplishment of this natural purpose."

We think the above will satisfy our inquiring friend that if the tail is really diseased, that the origin of the difficulty is not in the tail itself, but suffers with the other parts of the system. It is not improbable that relief may sometimes be afforded by this cropping, but there are remedies

better than to mutilate and disfigure the animal for life.

THE SEASON.

I have not done the first stroke of farming yet, and may not for a week to come. We are now having the first spring rain. The frost is mostly out, but the ground has not settled until this rain, which I hope will do the thing in good earnest. I have learned to look upon the *Farmer* as an old and well-tried friend, and to welcome its appearance, laden with stores of the good and the useful."

S. TENNEY.

East Raymond, Me., May 9, 1854.

O. S. BLISS, *Milton, Vt.*—You must write Rev. J. T. TRASK, of Fitchburg, Mass., for information about the stump puller. Millet seed is worth two dollars a bushel. For particulars in relation to it as a crop for fodder, see monthly *Farmer*, for 1853, pages 157 and 203. On good land, well manured, eight quarts of seed is sufficient for an acre.

H. F. OSLAND, *Parson, Mass.*—"Will you please inform me what kind of manure will be the best for potatoes on wet, clayey land, where barnyard manure cannot be had?"

If you must plant such land with potatoes, and have no coarse manures, try guano on a portion of it—on another try ashes, sawdust, &c. But the best use for such land is to plow, manure and lay down to grass in August.

MR. GEORGE CARPENTER, *Orange, Mass.*, writes that he has a pair of twin lambs which at birth weighed 19½ lbs., and another which weighed 11½ lbs., from two English "smut sheep." A neighbor, Mr. R. E. CARPENTER, has a calf which weighed at birth 140 pounds!

E. KINSLEY, *Derby, Vt.*, writes: "you will confer a favor by informing me what is the best and most profitable way of raising southern corn for fodder; also the best way of curing it for winter use, and where I can get good seed?"

Plow and manure your land well, and then make a broad, shallow furrow, by going both ways with a small plow, and then sow the corn liberally in the furrow. Five or six rows ten rods long each, we should think, would require half a bushel of seed. The common yellow or white flat southern corn, such as may be found at any of the grain stores, is the kind mostly used. It should be sowed quite thick or it will grow so stout that the cattle will refuse to eat it. It is a very difficult crop to dry sufficiently for winter use, but with favorable weather may be cured by allowing it to wilt for a day or two after cutting, then tie in small bundles near the top and hang upon the fences or poles laid up for the purpose.

SICK HOGS.—MESSRS. EDITORS:—I saw in a late *Cultivator*, an inquiry by Mr. Snow for a remedy for lame hogs, and would say to him, I had a breeding-sow last spring, which, when she had gone about one-quarter of her time, was taken very

much as his were. I had seen bone-dust recommended in the *Cultivator* some time before, and therefore took beef-bones, burnt them and pounded them fine, and put two table-spoonfuls of the dust, one of flour of sulphur, and a little wood-ashes, in her feed, which completely cured my hog, which brought me as fine a litter of pigs as ever I raised, obtaining for them the first premium at the last agricultural Fair held at Providence, R. I.

—*Boston Cultivator.*

WARWICK.

For the New England Farmer.

RANCID BUTTER.

MR. EDITOR:—Dear Sir,—I have just been reading a long article in the *Farmer* of April 22, on *rancid butter*. I am not about to write an essay on butter-making, but I do wish to ask one plain question, and that is this. What possible difficulty is there in the way of (at least some) of you Boston folks having good butter? I do know that there is good butter made in the country, and you might just as well have it right from the dairy as to have it go through the hands of speculators, to be spoiled, and then pay them a heavy fee for their trouble of spoiling it. They come and tell us they can afford to pay us 14 or 15 or at the most 16 cents per lb., for our butter, if it is very nice, and after compounding it with equal parts of other grease, they go to your market and sell it for double what they gave, and the dairy-women are scandalized for making such miserable butter. Now I do not believe in this mode of doing business. If you have my butter, why not have it of me? not of the third or fourth person, which method takes all the profit from me, and gives it to him who don't deserve it; it also increases your butter bill, and that, too, for a poorer article than I would furnish.

We have some three or four hundred lbs. nice maple sugar we should like to sell—no dead negroes in it.

MRS. S. PIERCE.

Londonderry, Vt., 1854.

REMARKS.—Though, perhaps, not intended for publication, we give the above excellent letter for the benefit of our butter-eating and maple sugar loving friends. We have not seen a pound of first-rate butter these three months; nor have we any doubt but that the good butter is mixed, as intimated above. There is no eatable so scarce in market, as that of good butter.

CORN AND THE WIRE-WORM.

MR. JOHN WORKLEY communicates the fact to the *Michigan Farmer*, that at the time of planting his corn, he put two or three pieces of corn cobs in the hill, and that in a few days if there are any wire-worms in the soil, they will be found in the pith of the cob, and will remain there without interfering with the corn. The editor of the *Farmer* suggests that at the first hoeing it would be well to take out the cobs and burn them, and thus destroy the worms. The remedy may be easily tried, and the cob would undoubtedly be worth something to the hill as a fertilizer.

For the New England Farmer.

MONTHLY FARMER FOR MAY.

This publication "has been laid upon our table," as the editors say; and for aught I can see, it looks just as well along-side that loaf of brown bread, as it would in the study of the literary man. It has been read, too; it never stays long in our house without that. Beside "ourselves," here are four boys large enough to read the pieces or to crow over the pictures, and when we add the neighbors who help us patronize the paper, we shall have probably about the right figure with which to multiply the whole number printed, in order to ascertain very nearly how many people read the *Farmer*, and to form some opinion of the influence, on young and old, which must be exerted by it as a whole, and by each article as a part. These facts ought to be kept in mind by all who write for the paper. Were the readers of the *Farmer* to be assembled in some vast grove, and we, the occasional contributors to its columns, severally called to the "stand" and obliged to read our respective productions, face to face with the congregated multitude, should we have no cause to regret that we took no more pains in the arrangement of our thoughts, in our mode of expression, or in the brevity of our articles! However this might be, I think the following Table of Contents of the May *Farmer* will show that most of us would have no occasion to be ashamed of the company in which we should find ourselves placed.

CORRESPONDENCE.

— (Ms.).....	Legislative Ag. Meetings.
B. F. Catter, (N. H.).....	Profit in Raising Corn.
A. Vermonter, (Vt.).....	Reversing Sods.
C. Goodrich, (Vt.).....	Bugology vs. Squashology.
R. M. Copeland, (Ms.).....	What a Garden Should be.
Prof. Harris, (Ms.).....	Larvæ of the Crane Fly.
E. Marsh, (Vt.).....	How to make the Butter Come.
D. C. (Mass.).....	Farming in New England.
J. B. Farmer, (Ms.).....	The Crow—Winter Worms.
Spartacus, (Ms.).....	Witch Hazel.
B. W. Jennings, (Ms.).....	Save the Bones.
L. W. Curtis, (Ms.).....	Guano and Super-phosphate.
O. V. Hills, (Ms.).....	Horn Shavings.
Benj. Willard, (Ms.).....	Early June Beet.
J. W. Proctor, (Ms.).....	Butter Making.
A. Subciver, (Ms.).....	Onions and Carrots.
David Lyman, (Ct.).....	Mowing Ground.
W. D. B., (Ms.).....	Barn Stables.
F. Holbrook, (Vt.).....	Composting.
A. Reader, (Ms.).....	Farmer for March.
L. Durand, (Ct.).....	Potato Rot.
J. J. H. Gregory, (Ms.).....	Effects of Inoculation.
Asa Clement, (Ms.).....	To Destroy the Curculio.
H. F. French, (N. H.).....	Sewing Machine.
L. Mathews, (Vt.).....	Warts on Plum Trees.
G. P., (Ms.).....	Potash as a Fertilizer.
A. City Mechanic, (Ms.).....	City Life.
F. Holbrook, (Vt.).....	Fattening Swine.
H. W. Merriam, (Ill.).....	Illinois Farm Implements.
— (Ms.).....	Cattle of New England.
Ten or twelve others.....	Make inquiries and suggestions.

EDITORIAL.

Calendar for May—Preparing Seed Corn—Concord Farmer's Club—Tenth, Eleventh and Twelfth Legislative Agricultural Meetings—Middlesex Co. Premiums—The Weather and Crops—Ketchum's Mowing Machine—State Farm at Westboro'—Use of Guano—Roots of Plants, Transplanting—Horse Hoe—Fruit Trees—Extracts and Replies—Improved Hinge Harrows.

EXTRACTS.

Extra Cow—Rancid Butter—Classification of Manures—Sowing Clover Seed—Plums, the Curculio—Past and Present Condition of Agriculture—Plowman's Song—Natural Beauty of Ornamental Trees—American Pomological Society—Will Ashes Dissolve Bones?

For want of time, it is impossible for me to attempt any sort of review of the contents of this number of the *Farmer*. Still, I am unwilling

to let the occasion slip without expressing my hearty commendation of the action of the Concord Farmers' Club in respect to agricultural experiments. It strikes me that the club have set an example that other similar associations will do well to follow,—an example the club will yet be proud of. The results of the experiments which individual members of the Concord Club have pledged themselves to make, will be looked for with interest by the readers of the *Farmer*, where we hope to find their reports, in due season. A "Concord Club" in every county of the Union!

A READER.

Winchester, May, 1854.

CULTURE OF THE SWEET POTATO.

This delicious and wholesome vegetable may be raised without difficulty in the New England States. It will not be quite so highly flavored, or dark colored as the southern, but is well worthy a place in every kitchen garden. By placing a potato in a hot-bed, or even on the grass, covered with fine loam and horse manure, sprouts enough may be obtained to plant several hills; the shoot must be pinched out with the nail and transplanted in the same manner that cabbage plants are. The treatment afterwards may be the same as for the cabbage. The vines run upon the ground like the cucumber vine, and are very beautiful. Plant on sandy loam and the hottest place you have; the first week in June is early enough.

Slips ready for transplanting may be obtained of L. RAND & Co.—84 Quincy Market, Boston.

LAYING OUT SURFACES.

To lay out an acre in a circle.—First fix a centre, and with a rope as a radius seven rods, three links and three-eighths long, one end attached to the centre and kept uniformly stretched, the sweep of it at the other end will lay out the acre.

For one-quarter of an acre, a rope three rods and fourteen links will be the right length.

For one-eighth of an acre, a rope two rods and thirteen links will be enough.

Triangles.—If you wish a triangle to contain just an acre, make each side nineteen rods, five and a half links long.


A triangle whose sides are six rods and twenty links long each, will contain one-eighth of an acre.

To lay out an Ellipse or Oval.—Set three stakes in a triangular position. Around these stretch a rope. Take away the stake at the apex of the triangle, which will be where the side of the oval is to come—move the stake along the rope, keeping it tight, and it will trace out the oval.

A square, to contain an acre, or just one hundred and sixty rods, should have each of its sides just twelve rods, ten feet and seven-tenths long.

☞ The original color of black garments can be restored by saturating the rusty parts with an infusion of logwood applied with a sponge; "dry and press off with a hot iron."

STOVES.

The quantity of air that rushes up a stove-pipe in windy weather, is much greater than when it is comparatively calm, unless the room is uncommonly tight. On this account every stove-pipe ought to have a valve or damper to regulate that quantity. But there is another reason why there ought to be a valve: when the fire is newly kindled, much smoke has to pass off, and may need the whole capacity of the pipe; but when the wood is nearly reduced to coal it may be partially closed; and during the process of combustion, they who sit near the stove ought to be attentive, and regulate the draft accordingly. Since I wrote last, a valve of this description has been fixed in the pipe; and I am satisfied that in windy weather, one-half of the wood is saved. In calm weather, it is of less account, though still very useful.  The fire now keeps as well through the night as on a hearth.

AN INVALID.

—Country Gentleman.

Ladies' Department.

WHY DON'T LADIES LEARN TO COOK.

Among the common things to the teaching of which public attention is now so strongly directed, it is to be hoped that the art of cookery—one of the commonest, and yet, apparently, one of the most neglected of all—will not be forgotten. The instruction of the female peasantry in this useful art would be as advantageous to themselves when married and settled on their own hearths, as to the families of the middle classes, in which before marriage they officiate as domestic servants. Emigration and abundance of employment have given to the servants at home the upperhand as completely as if they were in Australia. On all sides we hear complaints of the difficulty of finding, and of retaining when found, a cook who can roast a leg of mutton, and make batter pudding or pea-soup. In point of fact, we have heard of ladies who have it in serious contemplation to dispense with servants altogether, as the least troublesome alternative. Without wishing matters carried quite so far, we are convinced that many of our fair friends would lose nothing, either in point of respectability or happiness, while they could add at least one-third to the effective incomes of their husbands, if they were to spend a little more time in their kitchens superintending the preparation of the family dinner, instead of contenting themselves with ordering it—if, indeed, they condescended to do even that. Some forty years back ladies were driven to shoemaking as a fashionable way of killing time. Why not try a little cooking? Thanks to the modern stoves with their nicely arranged skillets and stewpans, which science and skill have substituted for the blazing kitchen hearth of other days, young ladies of the nineteenth century just passing its prime, may cook without soiling their fingers or injuring their complexions. Were it not so, we would not recommend them to cook. We would rather live on bread and cheese all our lives.

It will be said, perhaps, that our notions with regard to female education and employment are too antiquated—that in these matters, as in every-

thing else, a new era has dawned, and the solid course of instruction now given in colleges for ladies will be triumphantly appealed to. Ladies, however, who possess these solid acquirements—who like Lady Jane Grey, prefer Plato to a picnic—will be least likely to neglect the economy of the kitchen. They will thoroughly understand the dignity of the employment, and call to mind all the poetry of cooking. To say nothing of the dinner which Milton describes Eve as preparing when “on hospitable thoughts intent,” there are the Homeric banquets, at which kings literally “killed their own meat,” and at which queens and princesses turned the spit for the roasting, or drew the water and chopped wood for the boiling. Cooking is classical, and no lady will disdain to take part in it who has read of these feasts in the original Greek. Let it be observed that it is the middle and working classes on whom we wish to urge the importance of the study. An earl's daughter can afford to be so ignorant of common things as not to be able to recognize chickens in a poultry-yard, because they do not run about with a liver under one wing and a gizzard under the other, though our modern poultry shows, it must be confessed, have done much to dissipate this error. A knowledge, however, of the art of cooking is of more importance to the wives of the laboring population than to those of the middle classes, because it is the art, when properly cultivated, of making a little go a great way. A French army can subsist in a country where an English one would starve, and chiefly for this reason—a French soldier can cook.—*Mark-Lane Express.*

ENGLISH RECEIPTS.

TEA CAKE.—Rub into a quart of dried flour of the finest kind, a quarter of a pound of butter; then beat up two eggs with two teaspoonfuls of sifted sugar, and two tablespoonfuls of washed brewer's or unwashed distiller's yeast; pour this liquid mixture into the centre of the flour, and add a pint of warm milk as you mix it; beat it up with the hand until it comes off without sticking; set it to rise before the fire, having covered it with a cloth; after it has remained there an hour, make it up into good-sized cakes an inch thick; set them in tin plates to rise before the fire during ten minutes, then bake them in a slow oven. These cakes may be split, toasted, and buttered after they are cold.

ICING FOR CAKE.—Beat the white of one egg perfectly light—then add eight teaspoonfuls of loaf sugar, pounded fine and sifted, very gradually, beating it well; after every spoonful, add one drop of the essence of lemon, or rose-water, to flavor it. If you wish to color it pink, stir in a few grains of cochineal powder or rose-pink; if you wish it blue, add a little of what is called powder-blue. Lay the frosting on the cake with a knife, soon after it is taken from the oven—smooth it over, and let it remain in a cool place till hard. To frost a common-sized loaf of cake, allow the white of one egg and half of another.

PLEASANT.—Going to “meet her by moonlight,” and after waiting for two hours, to find yourself still “alone.”

ADVERTISING DEPARTMENT.

A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....\$0

The above rates will be charged for all advertisements, whether longer or shorter.

Walnut Grove Nursery.

NEWTON CENTRE, MASS.



The subscribers have on hand as usual a large stock of Fruit and other Trees, which they are prepared to sell at very reasonable rates. Among others, Apple, Pear, Cherry, Plum, Peach, Grape Vines, Raspberries, Blackberries, &c. &c. Also, Ornamental Trees, Shrubs, Roses, Herbaceous Roots, Orcepers, &c. &c.

A splendid lot of Sugar Maple, 8 to 10 feet high, \$30 per hundred.

6000 Apple stocks, \$10 per thousand.

6000 Buckthorn, 3 to 5 years, \$15 to \$20 per thousand.

Large and fine Norway Spruce; Arbor Vite for hedges and standards.

Fine lot Red Dutch Currants, \$6 per hundred.

Seeds will be furnished, if ordered early.

Other things too numerous to mention. All orders will be promptly attended to, and the trees securely packed, when desired, for which an extra charge will be made. Catalogues sent to post-paid applicants. All packages delivered in Boston free of expense.

JAMES HYDE & SON.

Newton Centre, March 18, 1854.

Fruit and Ornamental Trees.



The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines &c. 1000 Buckthorn and Arbor Vite for Hedges.

R. & G. HYDE.

Newton Corner, March 18, 1854.

To Farmers.

THIS subscriber is now prepared to receive orders for the Improved Poudrette. It has been manufactured under the advice of some of the best agricultural chemists in the Country, and is now commended to the public as the most certain and cheap Fertilizer that can be obtained, acting favorably on all crops, and on all soils. Six different articles are used in its composition, which combined make it a perfect manure for every crop raised in New England. It is finely adapted to corn, and the present and prospective high prices of this indispensable crop, ought to induce all farmers to increase the quantity planted, which they can do profitably by using the Improved Poudrette.

Prof. Mapes says of it, "no farmer using it once, will be willing ever to dispense with it." I raised corn with it the past season at a cost of less than 40 cts. per bushel. Price in Providence \$1.50 per bbl., cash. It can be obtained of Messrs. PARKER & WHITE, 50 & 55 Blackstone Street, Boston.

T. B. HALLIDAY,

12 West Water Street, Providence, R. I.

Feb. 25, 1854.

Super-Phosphate of Lime.

THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DEVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

A Fine Jersey Hefter Calf,



Full-blooded, of the Motley Stock, dropped March 25, for sale by

J. J. DIXWELL,

65 State Street.

May 6, 1854.

Rejected Applications, &c.

PEOPLE'S PATENT OFFICE,
No. 86 Nassau St., New York.

THE undersigned respectfully gives notice that he is at all times prepared to pay special attention to the prosecution of rejected applications for Patents; also to contested and interfering cases. In some instances he will undertake to prosecute rejected cases, receiving no compensation unless the Patent is granted.

Patent business of every description, whether before the United States Commissioner, or the Circuit and United States Supreme Courts, promptly attended to.

The undersigned being represented at the seat of government by William P. Elliot, Esq., formerly of the American Patent Office, possesses rare facilities for immediate reference to the patented models, drawings, records, assignments, and other official matters. Examinations for particular inventions at the Patent Office, made on moderate terms.

Persons wishing for information or advice relative to Patents or Inventions, may at all times consult the undersigned without charge, either personally at his office, or by letter. To those living at a distance, he would state, that all the needful steps necessary to secure a Patent, can be arranged by letter, just as well as if the party were present, and the expense of a journey be thus saved. All consultations strictly confidential. The whole expense of Patents, in the United States, is small.

ALFRED E. BEACH,

Solicitor of American and Foreign Patents,
No. 86 Nassau Street, New York.

Feb. 25, 1854.

1w*June

One Dollar a Year! 50 Cents a Volume.

SPLENDID ENGRAVINGS!

The People's Journal,

AN ILLUSTRATED RECORD OF AGRICULTURE, MECHANICS, SCIENCE, AND USEFUL KNOWLEDGE.

EVERY Number contains 32 Large Pages of Letter-Press, Beautifully Printed on Fine Paper, and PROFUSELY ILLUSTRATED with ENGRAVINGS, forming at the end of each year, TWO SPLENDID VOLUMES, comprising Four Hundred Pages, and Illustrated with about FIVE HUNDRED ELEGANT ENGRAVINGS.

The entire cost being only ONE DOLLAR.

The People's Journal was commenced in November, 1853, and has already attained a large circulation. The November Number contained 40 engravings, the December Number 73 engravings, the January Number 47 engravings, and the February issue has 61 engravings, making in all 220 illustrations, although only four numbers have been published. These relate to Science, Art, Mechanics, Agriculture, and Useful Knowledge, in accordance with the general plan of the work. No publication of the kind has ever been produced with such magnificence or at so cheap a price. It is admired and taken by every one who sees it.

TERMS.—To Subscribers—One Dollar a Year, or Fifty Cents for Six Months. Subscriptions may be sent by mail in coin, post office stamps, or bills, at the risk of the publisher. The name of the Post Office, County and State, where the paper is desired to be sent, should be plainly written. Address, postage paid.

ALFRED E. BEACH,

No. 86 Nassau Street, New York City,
Editor of the People's Journal.

A LIBERAL DISCOUNT TO POST MASTERS AND AGENTS.

Single copies 12½ cents. Specimens sent on receipt of four postage stamps.

Feb. 4, 1854.

4w*

EDWARD HARRISON'S PATENT GRIST MILL



Received the highest premium at the World's Fair; and more than two hundred and fifty of them have been sold within two years. The stones are French Burr; the frames and hoppers, cast iron; and the spindles, cast steel. They will work both for flouring and on all kinds of grain, and will keep in repair longer than any other mill. Having just completed my new buildings, for manufacturing and running them, I am now prepared to supply all orders for all the sizes, from twenty inches to four foot diameter, including a superior farm and plantation mill, which will grind corn in the best manner, by horse power, or even by hand. Public attention is invited to this small mill in particular. Descriptive circulars, with cuts, sent to post-paid applications.

EDWARD HARRISON,

Sole manufacturer, and proprietor of the Patent.
New Haven, Ct.

April 29, 1854.

6m*

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

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Cranberry Plants.

BELL, or Egg shaped Variety—commonly raised in New England, and no doubt is the best variety for cultivation—they are hardy and prolific—sometimes produce over 250 bushels & more, after 2 years, and needs but little cultivation. Circulars relating to culture and price will be forwarded to applicants.

F. TROWBRIDGE.

New Haven, Conn

Feb. 18, 1854.

tr

Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime—"DeBurg's No. 1."

Powdrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

tr

Suffolk Swine.

The subscriber offers for sale, on reasonable terms, several full blood Suffolk Sows, of different ages, two Boars, and a dozen Pigs. Some of these animals are of the best quality for symmetry and beauty, and are the descendants of Swine which were imported from England last spring.

HENRY M. CLARKE,

Linden Place, Waltham

March 18, 1854;

tr

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLD and JOHN NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate

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The FARMER is devoted exclusively to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

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An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments, under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

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The monthly contains nearly the same matter as the Agricultural department of the weekly.

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All orders and letters should be addressed, post-paid.

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WAREHOUSE AND SEED STORE,

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THE Proprietors having recently enlarged their Warehouses, and increased their stocks at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

OF PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—Improved Scotch Ploughs for lapped furrows—Improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others Patent Corn Shellers, with and without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes, Horse Powers, Threshing Machines, Thermometer Churns, Dash Churns, Corn Planters, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post-paid.

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., Jan. 1, 1853.

tr

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The subscribers have recently enlarged their Warehouse by the addition of two stores, running east to the corner of North Street, so that they are now able to show their friends and customers a more complete stock in their line of manufacture and trade, than ever before, viz.: Machines and Implements.—Improved Greensward, Stubble, Michigan, Sub-soil and Double Mould Board Plows, Seed Sowers, Cornplanters, Cultivators, Harrows, Ox Yokes, Wheelbarrows, &c.

Tuttle's, Graves & Hatch's, Markham's, Jackson Mason's, Clark's and Waterbury Hoes.

Ames', White's, Vaughan & Cobb's, and other Cast Steel Shovels and Spades. Tools of all sorts, Seeds, Trees, Fertilizers, at Wholesale and Retail.

PARKER, WHITE & GANNETT,

47, 53 & 63 Blackstone Street, Boston.

6w

April 18, 1854.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, JULY, 1854.

NO. 7.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE.....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH } EDITORS.

CALENDAR FOR JULY.

"Then came JULY, boiling like to fire,
That all his garments he had cast away;
Upon a lion raging yet with ire
He boldly rode, and made him to obey:
* * * * *
Behind his backe a sithe, and by his side,
Under his belt, he bore a sickle circling wide."



IN JULY, the great Hay Month, the principal portion of this important crop is gathered. There is something in the collecting of this delightful harvest which inspires animation and pleasant emotions in all. The mowers,

the spreaders and the rakers, in their white shirts, make the landscape a most lively scene, while the sweet odors of the drying blossoms come to the senses upon every breath.

How the farm has filled up—what a fulness there is all about the homestead. The fences are half hidden in the spires of the ripening red-top, the heads of the herds-grass, and sweet blossoms of the red clover. How your neighbor's house is hidden from view by the thick foliage of the old apple trees, the stately ash and the drooping elm. Honeysuckles of varied hues and odors twine around the pillars of the piazza, or climb kindly over the lattice of the old porch to shut out the noontide sun. "The woods and groves have darkened into one impervious mass of sober uniform green, and having for awhile ceased to exercise the more active functions of the spring, are resting from their labors, in that state of 'wise passiveness' which we, in virtue of our infinitely greater wisdom, know so little how to enjoy."

How appropriately is every thing ordered! The heat is now greater than in any other month, just at the moment when it is most wanted to save one of our most important crops. But fervid as are the days, nature is still lavishing her favors, for besides the flowers of last month, there are now the candy tuft, the catch-fly, columbines, egg-

plants, French marygold, marvel of Peru, and roses and lilies. So the woods and groves produce new flowers, and the roadsides are ornamented with the blue-bell and other gay blossoms to gladden the traveller's eye.

Before the month closes, the rye will be yellow and ready for the sickle. The "oats will whiten apace, and quiver, each individual grain on its light stem, as they hang like rain-drops in the air." The wheat and barley assume a dull green while their swelling ears bow before every breeze that blows over them. There is a beautiful adaptation of things to each other, and of particular things to the whole.

"The poetry of the earth is never dead;
When all the birds are faint with the hot sun,
And hide in cooling trees, a voice will run
From hedge to hedge about the new-mown mead;
That is the grasshopper's."

So all the lower orders of creation live their little life in joy, happy in the adaptation of their habits and wants to the condition of things about them. Some pour forth their melodies before the sun streaks the east in the early morning; some chirp and sing in the hot and fervid noon, and others utter their plaintive notes in the cool and sombre evening. The farm is full of profitable teachings to every reflecting mind.

Though late in starting, vegetation has had a rapid growth, and now the crops generally look well. Without much more rain, the grass crop will be, at least an average one, and so will the small grains, though rye, perhaps, may not be as heavy as for two or three years past.

Corn looks well—it has had a good color from the start. But *guano* and the *crores* have been unusually destructive upon it; much now will depend upon the heat of the season, and upon

HOING.—Many persons continue to throw up hills about the corn, and even upon quite dry soils. This mode of cultivation may answer on low lands, but we cannot believe it a good one, on such land

as is generally used for the crop. Is it known whether the Indians hilled their corn before the English cultivated it among them? A proper hoeing of the corn must not be neglected, during the early part of haying. Keep the ground clear of weeds, and the surface in such fine tilth as to receive the greatest benefit from the sun, rain and dews.

HAYING.—Do not delay this work too long. By selecting a field here and there, or even a part of a field, that has come into fit condition to be cut, you will gain in the excellence of the fodder, far more than the loss will be of cutting in small parcels. Do not make the hay *too much*. In a bright, hot, July day, herds grass or red top, cut early in the morning, spread evenly and frequently stirred, can be made sufficiently in one day, to keep sweet and perfectly well through the winter. The juices are fairly burnt out of a great deal of hay, and it is carried to the barn so wiry and hard that the cattle eat the leaves and refuse the rest. A little salt may be added to hay with advantage.

HARVESTING GRAIN.—The cutting of wheat, barley, rye, and oats, is often delayed too long, and the loss arising from it is in several ways. By early cutting,

1. It will not fall out and be lost upon the ground.

2. The grain cut early will make more bread, and the color will be more delicate.

3. You prevent an unnecessary exhaustion of the soil—for after the stem reaches a certain state, if nutriment is gathered by it, it is not conveyed to the grain. And,

4. The straw will be altogether better, whether it is to be used for fodder or domestic purposes. Whenever the straw becomes dry its action upon the grain has probably ceased. But is it not too long to wait until the *whole* stem is dry? The stem is smallest directly under the head, and when that part is dead the crop may be harvested, and will produce the greatest weight of grain.

TURNIPS.—Where the peas, potatoes and other early crops have been taken off, put in ruta bagas, and later in the month the flat turnip.

CABBAGES.—Cabbages for late crops may be set.

MELONS, squashes, cucumbers, and all the garden plants, should be kept clean and carefully tended every way. It will not be too late to put in melons and cucumbers for pickles early in this month. Celery may be planted out in trenches.

SEEDS.—Collect all seeds as fast as they come to maturity.

LIME.—To receive the greatest benefit from lime, it must be kept as near the surface as possible. The reason is this: its weight and minuteness give it a tendency to sink; and after a few years of cul-

tivation, a large portion of it will be found to have gone beyond the depth of its most efficient action. Hence it is advisable to spread it on the ground after plowing; then harrow it well in, and allow it to remain in grass as long as good crops can be had. When the lime is settled down below the reach of the common plow, the subsoil plow will prolong its effect, by enabling the atmosphere and the roots of plants to penetrate the subsoil likewise.

THE CHILD AND THE FLOWER.

"O, tell me, mother," said a fair young child,
As he gazed with his earnest eyes,
"Who made this flower? What painted it so?
What gave to it that deep rich glow,
Like the blue of the beautiful skies?"

"He who made that flower, my darling boy,
Who maketh the thunders roll;
He made the earth, the sky, the sea,
The flower, the fruit, the leaf, the tree,
And gave to thee thy soul.

"Is His home, dear mother, that southern land,
Where the perfumed breezes play—
Where the gorgeous birds, with golden wing,
Make bright the never changing spring
In bowers that are ever gay?"

"His home, my child, is beyond the skies,
A paradise of flowers,
Where little children—angels there—
Paint those flowers so bright and fair,
And bring them to this land of ours."

"O, how I wish that home were mine,
And you were with me too;
I would paint a wreath so strangely fair
And twine it, mother, for you to wear—
A crown of heaven's own hue!"

BUTTER.

Not one pound in five of the butter sold in the market is fit for human food. Buttermakers should remember these few short rules:

The newer and sweeter the cream, the sweeter and higher flavored will be the butter.

The air must be fresh and pure in the room or cellar where the milk is set.

The cream should not remain on the milk over thirty-six hours.

Keep the cream in tin pails, or stone pots, into which put a spoonful of salt at the beginning, then stir the cream lightly each morning and evening: this will prevent it from moulding or souring.

Churn as often as once a week, and as much oftener as circumstances will permit.

Upon churning, add the cream upon all the milk in the dairy.

Use nearly an ounce of salt to a pound of butter.

Work the butter over twice, to free it from the buttermilk and brine, before lumping and packing.

Be sure that it is entirely free from every particle of buttermilk, or coagulated milk, and it will keep sweet as long as desired.

In Scotland, a syphon is sometimes used to separate the milk from the cream, instead of skimming the pans.

HOEING.

As the season for planting and hoeing is at hand, a few words upon those subjects may not be deemed out of place.

So far as the hoeing of corn is concerned, more correct ideas and practices have been gradually adopted within the past ten years, and we seldom now see in a cornfield, any other than a very low flat hill, if any hill at all; but with almost all other hoed crops, such as beans, hops and especially potatoes, so far as my observation extends, the same high conical hills are still made around them as were made thirty or forty years ago.—Now I readily admit that there may be locations when such shaped hills may be beneficial and useful, such for instance as in low, clayey soils liable to overflow in heavy showers (though such are seldom planted,) but the trouble lies in not making these exceptions, and we therefore see the farmers who still adhere to the old practice of high hilling, do so to all their different hoed crops and on all kinds of soils. This I believe to be a great mistake, and those who have discontinued the practice with their corn, believe they derive great advantages from the change, especially in dry seasons, obtaining much larger crops and leaving the fields in much better condition for plowing the coming spring, saving the labor of splitting the hills, as it is termed.

Seeing now the advantage to corn, of not hilling, why should not the intelligent farmers push their investigations a step farther and inquire if the same practice cannot be extended to the potato. But I anticipate in the outset that an objection may be raised in the case of the potatoes, and that it may be urged that it is positively necessary that it should be earthed up in order that room be furnished for the tubers to form; but what evidence have we of this? So when the subject of not hilling corn was first agitated, it was urged that it was necessary in order that new sets of roots might be formed to brace up the plant when it attained its full height, and prevent its blowing over, but upon trial and investigation it was discovered that these roots were merely the result of hilling up, and farther, that corn not thus hilled up and thus supported by new roots, stood equally as well the assaults of wind and storm, and the practice of high hilling was discarded as eminently injurious by shedding off the rains from the roots and exposing a much larger surface to the sun's rays for evaporation during the heats of summer.

Now might it not prove upon investigation that the potato might do equally as well, and even better, without any hilling at all? In the discussions upon the subject of hilling corn, it was with much pertinency asked, if nature had not provided a way to support a stalk of corn against an attack of wind, without recourse to art, and may it not be asked with as much pertinacity, if nature has not provided a way to produce the tuber of the potato plant without recourse to an artificial hill or mound around the plant? But I am aware that it may be still further urged, that in earthing up potatoes you give them more room and a greater chance for expansion, and thus increase their size; but to this I would say, just plow your ground deep and well, pulverize your soil, and your potato will find ample room to expand between the hills and rows, and by keeping

the ground level, you will be saved the mortification of beholding them wilt and wither in time of drought. But again it may be urged that as upon the examination of the potato root and stalk, it is found there are numerous offshoots of roots above the original, evidently produced by hilling up, therefore the amount of roots are increased and consequently the tubers. To this I would answer, that it is by no means certain that the original or lower roots would not have produced as many tubers, and *larger ones*, if left to the evident course of nature. What would be the most natural inference to draw from the fact, that after the potato plant is fairly up and its roots well developed, it is earthed up and its first roots laid below the benign influence of light and air? Would it not be, that it would tax the energies of the plant, to again produce and throw out a new series of roots, and thus lessen the supply of nourishment to the original ones? It certainly so seems to me, and it is perfectly evident to my mind that the true course to pursue in raising potatoes is; to spread the manure upon the surface and turn it well under with the plow, and then furrow for the crop from three to four inches deep; drop the seed in the bottom of the furrow with a little ashes and plaster; cover two inches; run the cultivator between the rows in hoeing, and finish the cultivation with leaving the ground perfectly level. This course in all ordinary seasons would insure the crop against drought, and except in very wet ground (which by the way should never be planted with the potato during the prevalence of the rot,) would, I believe, insure a greater crop than with the present practice of hilling.

The practice of making high hills I believe is still kept up in the cultivation of hops, and to this may we not attribute the short crops that occur occasionally, as they are more generally raised on light loam or sandy soils? I think the subject should attract attention, and experiments should be instituted to test the weather.

Milford, May 20, 1854. H. A. DANIELS.
Farmer and Visitor.

For the New England Farmer.

CHEAP EXPERIMENT IN DECOMPOSING BONES.

In the Monthly Farmer for April, page 186, there appeared an article from the pen of JAMES RICHARDSON, Jr., under the above caption. After speaking of the former waste of bones and of their being at last brought into use as an article of manure, and the difficulty attending their decomposition, by being ground or dissolved in sulphuric acid, he adds, "without alluding to other experiments, in regard to dissolving bones in *strong lye*, &c.—that have been *partially successful*, I propose here, in as few words as possible, to describe an experiment made on a small scale, with bones and horse manure, that may lead the reader to still further experiments, and at length end in some practical result." He then goes on to describe the experiment, informing us that it was made by a soap manufacturer.

As to the experiment of decomposing or reducing bones to a powder by boiling in "*strong lye*," I know that it will do the job in a few hours, for I have done it. The time occupied was about four hours, stirring occasionally. I am now try-

ing an experiment of decomposing them in lye without boiling, and you shall know the result.

It seems that Mr. Willis, the conductor of the experiment alluded to, is a "soap manufacturer," so that without doubt the bones he used had been boiled in "strong lye" sufficiently to deprive them of all their animal matter, thereby rendering them so brittle that they might have been pounded up without much difficulty. Hence "strong lye" had much to do with their decomposition. Gypsum should be mixed with bones and lye, to retain the ammonia, if the bones are fresh.

S. TENNEY.

HABITS OF INSECTS.

Small as the subject may appear to persons whose minds have not been turned in that direction, the study of insect life and of the habits and character of the numerous varieties and families of insects which infest our fruit trees, farms, and gardens, is intensely interesting, and when once entered upon, leads to a kind of knowledge which may be turned to practical account in the management of the farm or garden.

The insects injurious to vegetation are some of them so destructive in their habits as to be a great pest to the farmer. To guard against their ravages and prevent the serious injury if not the total destruction of our crops, requires in some instances a full knowledge of the habits and of the laws of insect life, a knowledge which very few farmers possess.

A few men in this country have directed their attention to these subjects, and have given to the world the benefit of their researches. Prominent among these is Dr. Harris, of Massachusetts, whose book is regarded as a standard work upon insects, a work from which a vast amount of practical information may be gained.

To show the intimate knowledge which may be acquired of the habits of the insects which infest our orchards and gardens, we copy from Dr. Harris's work the following account of the Aphis or plant lice, and of the intimacy subsisting between them and the ant.—*New York Farmer*.

"The genus to which plant lice belong is called *aphis*, from a Greek word which signifies to exhaust. The following are the principal characteristics by which they may be distinguished from other insects. Their bodies are short, oval, and soft, and are furnished at the hinder extremity with two little tubes, knobs, or pores, from which exude almost constantly minute drops of a fluid as sweet as honey; their heads are small, their beaks are very long and tubular, their eyes are globular, but they have not eyelets, their antennae are long and usually taper toward the extremity, and their legs are also very long and slender, and there are only two joints to their feet. Their upper are nearly twice as large as the lower wings, are longer than the body, are gradually widened toward the extremity, and are nearly triangular; they are almost vertical when at rest, and cover the body above like a very sharp-ridged roof.

"Plant lice seem to love society, and often herd together in dense masses, each one remaining fixed to the plant by means of its long tubular beak; and they rarely change their places till

they have exhausted the part first attacked. The attitudes and manners of these little creatures are exceedingly amusing. When disturbed, like restive horses, they begin to kick and sprawl in a most ludicrous manner. They may be seen, at times, suspended by their beaks alone, and throwing up their legs as if in a high frolic, but too much engaged in sucking, to withdraw their beaks. As they take in great quantities of sap, they would soon become gorged if they did not get rid of the superabundant fluid through the two little tubes or pores at the extremity of their bodies. When one of them gets running over full, it seems to communicate its uneasy sensations, by a kind of animal magnetism to the whole flock, upon which they all, with one accord, jerk upward their bodies, and eject a shower of the honeyed fluid. The leaves and bark of plants much infested by these insects are often completely sprinkled over with drops of this sticky fluid, which, on drying, becomes dark-colored, and greatly disfigure the plant. This appearance has been denominated honey-dew; but there is another somewhat similar production observable on plants, after very dry weather, which has received the same name and consists of an extravasation or oozing of the sap from the leaves. We are often apprised of the presence of plant lice on plants growing in the open air, by the ants ascending and descending the stem. By observing the motions of the latter, we soon ascertain that the sweet fluid discharged by the lice is the object of these visits. The stems swarm with slim and hungry ants running upward, and others lazily descending with their bellies filled almost to bursting. When arrived in the immediate vicinity of the plant lice, they greedily wipe up the sweet fluid which has distilled from them, and when this fails, they station themselves among the lice and catch the drops as they fall. The lice do not seem the least annoyed by the ants, but live on the best possible terms with them; and, on the other hand, the ants, though unsparing of other insects weaker than themselves, upon which they frequently prey, treat the plant lice with the utmost gentleness, caressing them with their antennae, and apparently inviting them to give out the fluid by patting their sides. Nor are the lice inattentive to these solicitations, when in a state to gratify the ants, for whose sake they not only seem to shorten the periods of the discharge, but actually yield the fluid when thus pressed. A single louse has been known to give it drop by drop successively to a number of ants that were waiting anxiously to receive it. When the plant lice cast their skins, the ants instantly remove the latter, nor will they allow any dirt or rubbish to remain on or about them. They even protect them from their enemies, and run about them in the hot sunshine to drive away the little ichneumon flies that are forever hovering near to deposit their eggs in their bodies."

HOW THE WORLD WAS MADE.—If you want to know how the world was made, look into a basin of dirty water—your wash bowl for example. See the thin particles of matter gradually come together by mutual attraction, and then hang suspended in the watery element, or sink to the bottom. Each particle is instinct with a sort of life or force, which impels it to seek out some

other substance, and by continual accretion thus build up a little world of matter. This as soon as the aqueous fluid disappears becomes dry land or earth, and afterwards undergoes various igneous changes. How this matter originated is another thing a long way antecedent to its formation into existing shapes. Many of the ancients held it to be eternal; but the first verse of Genesis settles that matter, and informs us that it was God who created it. This probably is the sum of all we shall ever know upon the subject.—*Maine Farmer.*

HAY AND HAY-MAKING.

Dr. HOLMES, of the *Maine Farmer*, very truly remarks in relation to this subject, that

"The grass crop is one of the most important, if not the most important of all to the farmer, and the making or curing the grass is an operation upon which turns, after all, much of the value of the crop. A short growth, if well prepared, is more valuable than an abundant one spoiled by an improper management in making."

The hay crop may well be considered as one of great importance to the agriculturist, being one of the principal products of the farm, and the one on which he relies for the sustenance of his live stock during winter, and a considerable portion of the fall and spring.

Yet while all concur in regarding this crop as of prime consequence, there are but very few, comparatively speaking, who adopt the same modes of cutting and preserving it. We know, indeed, of no subject embraced in the routine of agricultural engrossments, on which there is extant a greater discrepancy of opinion and practice. It is important that some general system should be adopted as well in the management of this crop as in that of grain, at least so far as regards the time and manner of cutting and securing the product. A late writer, in some judicious reflections upon the importance of this crop, and the modes of curing it says:—"That mode which will secure as much of the natural juices as possible, and in the cheapest practicable manner, is the one I have endeavored to attain. Counting nothing for board and team, we do not pay out \$1.00 per acre for cutting and securing our hay, at an average of one and a half tons per acre. In this section of the country the lands are principally of clay, and are quite free from stones. We lose ten times more out of hay by cutting too late than too early. Many let their clover and herds-grass stand till the seeds are ripe, and of consequence the stems become hard and wiry; a good share of the leaves have changed to a brownish state, and the natural sap has left the plant."

In cutting most, perhaps all kinds of grass, we think that the proper period is that, when the whole system having attained its maximum development, the flowers have unfolded, and when there is a large flow of rich and saccharine juice in the stalks and leaves. Some species of grass, it

is true, increase somewhat in bulk after inflorescence, but with the majority of plants used for hay, the development of the flower indicates, with sufficient accuracy, the attainment of their maximum excellence, and the time when they may perhaps be most economically cut. The article above quoted says:—

"To get at the most proper time for cutting, let us inquire what rule the gatherer of herbs adopts in filling his medicine chest, or the distiller his plants. In collecting herbs and plants, they cut them as soon as they come into flower. At this period they contain all their useful qualities, and by cutting at this period they secure the greatest quantity of oil; but herbs that are cut at this period and dried in the sun, lose much more of their invigorating and essential qualities than they do if dried in the shade. Plants of all sorts, if they are cut in full vigor, and afterward carefully dried, without any waste of their natural juices, either by bleaching with rain or evaporating in the sun, contain a quantity of nourishing matter nearly double what they do when allowed to attain their full growth and make some progress toward decay. When mowing is delayed, as it very frequently is, till an advanced period of the season, when plants have not only reached their ultimate growth, but begin to decay, this description of herbage must become tasteless, dry, tough, and less nourishing. Also over care in drying in the hot sun, by bleaching the juices of the early grasses, must produce a similar kind of fodder."

In curing clover hay, the principal value of which consists in the heads and foliage, we have observed, that when cut early and cured in "grass cock," as it is called, the hay possessed a much more brilliant and beautiful appearance than the same quality of grass, cut at the same time, and cured in the open air, or under a free exposure often for a protracted period to the sun. By cutting this grass when the crop is in full blossom, allowing it to remain in the swath the first day after mowing, till nearly night, and then turning it carefully with a fork so as to expose a fresh and unwilted surface to the night dews, and cocking it in the afternoon of the second day, in small compact cocks, of about eighty pounds unmade hay, to the cock, it will make evenly and thoroughly, and may be pitched and even trodden down in mow without being deprived of its heads or finer leaves. The color will be a most beautiful green, and the flowers will be almost as fresh in color as when cut. After cocking, let the weather be fair or foul, no opening or turning, (unless in case of a protracted storm) of the "grass cocks" should be allowed. It is unnecessary, as the hay will "cure" completely through, and the outside, when saturated with water, will soon dry off, and effect no harm whatever to the hay. You will never see mouldy hay, if this method is adopted, in "making" or curing it. In forming grass cocks, the fork is preferable to the rake, which is of service only in gathering up the scatterings, and regulating the size and shape of the cocks.

For the New England Farmer.

MONTHLY FARMER FOR JUNE.

It is so difficult for me to find time even to jot down a few thoughts suggested by reading the *Farmer*, that I often wonder how others have leisure to write as much as they do. But the fact is, I suppose, that "Many hands make light work." Here in the number for the busy month of June, is a larger list of original communications than is usual for the more leisure seasons; and, as will be seen, a very wide variety of subjects are discussed, in a brief, pithy, farmer-like style.

ORIGINAL COMMUNICATIONS—only.

H. P., (N. Y.).....	Small Potatoes for Seed—Wheat.
S. P. F., (Ms.).....	History of Birds of New England.
S. Tenny, (Ms.).....	Hen Manure.
N. P. Morrison, (Ms.).....	Best Apples to Raise.
J. N. Bagge, (Ms.).....	Biography of a Gardener.
M. J., (N. H.).....	Seedling with Barley.
S. P., (Ms.).....	Flows and Flowing.
John M. Tyler, (N. H.).....	Milch Cows.
D. C., (Ms.).....	Farming in New England.
Ira Goodhue, (Vt.).....	Making Maple Sugar.
A. Reader, (Ms.).....	Monthly Farmer for April.
A. Brown, (Ms.).....	Great Yield of Butter.
G. F. N., (Vt.).....	Green Corn for Cows.
Geo. B. Greene, (Vt.).....	Yellow Locust Trees.
E. D. B., (B. I.).....	Good Beef.
..... (Ms.).....	Extravagant Prices for Stock.
T. A. S., (Ms.).....	Seedling Land for Grass.
..... (Ms.).....	Experiments.
M., (Ms.).....	Cooked and Uncooked Food.
R. B. H., (Md.).....	Great oxen, cows, sheep, pigs and
J. B., (Ms.).....	Flowers and Birds. (Women.)
H. B. (N. H.).....	The Season—Frozen Trees.
H. Stratton, Jr., (Ct.).....	Manures.
F. A., (Ms.).....	Breaking Steers.
Essex, (Ms.).....	Middlesex Agricultural Society.
B., (Ms.).....	Shall I engage in Farming?
D. A., (Ms.).....	Why do cattle eat Horse Manure?
Henry F. French, (N. H.).....	A Lesson on Guano.
S. & T. S. Fletcher, (Vt.).....	Account of their Farm.
E. M. Copeland, (Ms.).....	Flower Garden.
W. Pierce, (Can.).....	High Price of Beef.
Agrioola, (Ms.).....	Profits of Farming.
.....	Fertilizers.
S. Tenny, (Ms.).....	The Season.
Mrs. S. Pierce, (Vt.).....	Mixing Butter.
A. Reader, (Ms.).....	Monthly Farmer for May.
Seven or eight others.....	Make inquiries and suggestions.

Which, by the way, with the replies of the Editor, are usually among the most instructive portion of the whole paper.

Here then we have almost as many different writers as there are pages in the *Farmer*, without taking into the account the usual variety of Editorial and Selected articles. To me, this is a most encouraging feature of the times, as well as of the *Farmer*. To those who believe that the facts which are to constitute an American System of Scientific Agriculture, are to come up from the broad fields of Practice, the labors of these correspondents, who are experimenting, observing, inquiring, in all parts of our diversified country, have a value and importance much greater than they can have with those who believe that these facts are to come down from Colleges, State Farms, or Chemical Laboratories. These working, thinking, men,—stationed on our hills and in our valleys, on the sandy plain and on the cloddy clay, on the worn-out soils of the East and on the new soils of the West; operating in almost every climate, from a tropical to a polar one, and engaged on productions as diversified as their circumstances are various,—even if they are not actually building up a "Science," certainly are doing much to make agricultural publications valuable, by their interchange of experience, practice and results, however simple each one's record may appear to himself. Send on your communications

then,—give us your failures as well as your triumphs; your disappointments as well as successes—there is room for them all in the columns of the *Farmer*. Here you speak, first, to a multitude of "Weekly" readers of a newspaper, and then neatly done up in book-form, "lettered and gilded," your productions appear on the shelves of agricultural libraries, throughout the country, to instruct and amuse generations yet unborn, as well as the men of your own time.

The foregoing list of original contributors, however, comprise only about one-half of the whole number of articles which make up this number of the *Monthly Farmer*. Among the more striking of which, are the pictures of farmer Slack and farmer Thrift; pictures too true for mere fun, for who has not seen the original of Farmer Slack? But it is not my intention to give even an index of the contents of this number.

I have a word or two for "B." who asks, apparently in good faith, "*Shall I engage in Farming?*" This depends, my good sir, on *yourself*. If you wish for our advice, please stand out, so that we may have a look at you. Are your shoulders broad and your back strong, or do you pride yourself on small gloves and narrow boots? Can you stand heat like a salamander and cold like a seal, or must you carry an umbrella in dog-days and a foot-stove in Winter? Are your sinews hardened by out-door labor, or enervated by indoor confinement? Did you earn your "eight hundred dollars" by hard knocks, or did it "fall" to you? Can you work fifteen hours a day in hay-time, or are you President of a ten-hour convention? Are you willing to eat and use the poorest, so as to sell the best, or must you be served first in all good things? Have you learned the trade of farming, or do you think it comes by nature and cattle-show addresses? And, lastly, how is it with your "woman?" Will she, like the one described on page 259 of this month's *Farmer*, be

"Up in the early morning; just at the peep of day,
Straining the milk in the dairy, turning the cows away,
Feeding the geese and turkeys, making the pumpkin pie,
Joggling the little one's cradle, driving away the flies?"

or would a loose cow frighten her out of her wits, and a pail of water be too much for her strength? Does she glory rather in spending five dollars, than in saving five cents? Answer these question satisfactorily to yourself, before you take any body's advice to "engage in farming," or you may find the acclimating process rather severe for your nerves. Mr. French gives us a capital article, headed "*Stick to the Farm*,"—an article that ought to be put in a frame and hung up in every farmhouse in the country,—but there is a great difference between advising to "Stick to the Farm," and recommending every agricultural dreamer to "engage in farming," without regard to his fitness for the business. The farm is a capital nursery of men for other professions in life, but your villages and city boys and girls are poor sprouts to put out on the farm—sort of hot-bed plants, that cannot stand the rough influences of out-door life. When merchants, mechanics or professional men, or their sons, conclude to turn farmers, I advise them to try the business at first, as apprentices or "hired men;" if they find they have stamina enough to work out the whole season, and shrewdness enough to lay up a hundred dollars a year

from their wages, then they may reasonably think of setting-up for themselves; and it will matter little what part of Massachusetts, or of the Union, they locate in,—such farmers prosper everywhere.

A READER.

Winchester, June, 1854.

SCRAPING AND WASHING TREES.

We have read the whole report alluded to below, and believe it well calculated to arrest some of the outrages against nature, so common, particularly in cities. Mr. COPELAND is an enthusiast in his profession, but his "zeal is according to knowledge," and we look for many a reform to take place through his instrumentality. We wish we could spare room for the whole report, but as we cannot, the condensing pen of Professor NASH, of the *Conn. Valley Farmer*, will give the reader its general outlines.

The Massachusetts Horticultural Society has published a report made to it by a committee appointed to inquire into "the uses and abuses of the practice of scraping and washing trees." The conclusions arrived at are so diametrically opposed to the prevalent opinion and practice, and seem at the same time so well supported by arguments, that we need no apology for publishing the resolutions in which those conclusions are contained, though we do not endorse everything contained in the report.

The resolves referred to are as follows:

"That, whereas it is a common custom to scrape off the outside bark of fruit and ornamental trees, and wash and plaster them with lime and other preparations, in the hope of benefitting the trees by the destruction of parasites and insects injurious to vegetation, and of improving their general appearance, the Massachusetts Horticultural Society do hereby resolve, for reasons which have been stated, that we consider this practice of no benefit to the tree, from its inability to affect the majority of the insects which are really injurious; and unnecessary in the case of lichens and mosses, they being not the cause but the consequence of disease and decay, and a positive violation of the laws of vegetable physiology, and consequently an injury to all trees, (but to ornamental ones in particular,) to an incalculable amount.

2d. That lichens and mosses, in a healthy state of the tree, are, so far as can be ascertained no injury to the bark, but from their varied colors, form one of its chiefest ornaments. Any operations for their removal are to be scrupulously avoided and reprehended.

3d. That as strict inquiry has shown that bark lice, woolly aphids, and some borers, do lay their eggs and hatch their young upon the bark of apples, pears, peaches and maples near the ground, and in the forks of the branches, a gentle rubbing with some pliable but stiff wire or other brush on the parts affected, to be followed by a washing with weak soap, or whale oil soap, suds, is desirable, and will be of benefit when a careful examination shall have shown that the eggs are deposited upon any tree in question, but that this process is unnecessary and uneconomical when the presence of the enemy has not been most clearly proved."

The other resolutions are to the same effect, one of them being directed against all alkaline preparations plastered on to trees.

These conclusions are endorsed by Geo. B. Emerson, the learned author of the *Trees of Massachusetts*, and by Mr. Tuckerman, who has made the subject of lichens his particular study. They are, moreover supported by many arguments, drawn from practice, experiment, theory and analogy, but we have not space to enter upon these.

The report is drawn up by B. Morris Copeland, a gentleman who has adopted the occupation of a landscape gardener, which we take to mean the tasteful arrangement of grounds. At any rate, we observe that he has been employed to lay out the grounds around the new Insane asylum at Taunton, and the Reform School at Westboro'. We should have said that this profession was not as yet likely to thrive in this country. If it does so we shall be only too glad, as it will indicate an increased culture of taste, a quality which unfortunately is by no means so often displayed in this country as could be desired. Very many appreciate a tasteful thing when they see it, but very few can make anything tasteful themselves. This is especially true in ornamental gardening, where ornament is too often only another name for caprice and absurdity. Mr. Copeland seems to us to be starting in the right way, for in his report he protests most strenuously against torturing nature, urging on the other hand that she be followed and imitated.—*Conn. Valley Farmer*.

For the *New England Farmer*.

MEADOW MUD AND LIME.

MR. EDITOR:—I have an inexhaustible bed of muck on my farm, which I have used more or less in the raw state for some time, and have not received much benefit from it, excepting what has been carried into the yard or stable. As near as I can describe it, it is "decayed vegetation." Now what I want to know is this, can I by mixing lime with it, make a compost that will produce a crop of corn, rye, oats, or grass, without the aid of other manures? (a.)

The land which I wish to use it on, is yellow loam and slate stone soil. How much lime to the load, and how much muck to the acre.

Thetford, Vt., 1854. YOUNG FARMER.

REMARKS.—(a.) There is more difficulty in answering the above query, than the inquirer is probably aware of. The "yellow loam and slate stone soil," may be highly calcareous, or it may abound in alkalies, and must be treated as one or the other prevails. If effervescence takes place freely upon the application of acids to some of the soil, it is a calcareous loam, and the lime would scarcely be necessary. But if there were no effervescence, the compost of muck and lime would be valuable. But it is at least doubtful, whether such a dressing upon your fields would give them much permanence of fertility.

Suppose you experiment upon one acre. Upon one quarter put 12 loads, of 30 bushels each, of muck, and 12 bushels of lime. On another quarter, add the same amount of muck, and omit the

lime. On the third quarter, the same muck and 12 bushels of unleached ashes, and on the fourth quarter not anything, and let us know the result.

SINCLAIR, in his *Code of Agriculture*, classifies loams into four sorts: 1. Sandy; 2. Gravelly; 3. Clayey; and 4. Peaty; but if decomposed slate contains a considerable portion of lime, and much of the remaining portions of the soil are evidently of vegetable origin, we do not see why the term "calcareous loam" should not be used as well as "sandy," "gravelly," or "clayey" loam.

For the New England Farmer.

"A HORSE'S FOOT"—AGAIN.

MESSES. EDITORS:—I was struck with the wonderful mechanism of the horse's foot, so minutely described in your last issue. No one, of the most common observation could read it without being instructed, yet this *same foot*, so necessary to the wants of man, is the careless concern of many.

Now with your permission, I will give you my own experience in this matter. I purchased a mare, originally sound. Her feet became tender; she had a colt. At three years old, her feet became tender also. The question arose, did the colt inherit tender feet? Is disease entailed with the brute creation? I found it for my interest to sell the animals. It was painful to drive them on a hard road. I then purchased a powerful mare, with great action. In a few months she began to cripple, and showed stiffness in the limbs. I investigated and sought the cause. She stood on the same *soft bed* occupied by her predecessor, which was the same with the colt. This was her manure, &c., with straw litter thrown in daily to keep her clean. It was suffered to remain till 2½ feet deep, then pitched out. It was found to contain great heat and strongly impregnated with ammonia. The hoofs stood in constant contact with heat, while the body of the animal was experiencing the heat of a *hot bed* while lying down. There was no escaping it. The conclusion was, that we had ignorantly been manufacturing tender feet, and the proof was apparent in this way. I substituted a plank floor, washed the legs and feet out clean, with cold water, 2 or 3 times a day, which retarded the fever in the limbs, and brought a returning moisture to the hoofs. She soon recovered in every respect, which convinced me of the too common error in the country of keeping horses on a *hot manure bed* instead of a hard floor.

From whence comes *pinched feet*, *corns*, *tenderness*, and swellings of the fetlock joints and legs? Do not too many cases begin in the pens where the colts are wintered, and stand in their filth, with occasional littering, for decency's sake?

Are not their young, tender feet susceptible of disease, and are not many contracted in this way? My experience satisfied me, and I was in season to save as sound an animal as ever travelled from impending ruin. I could trace no other cause. Should this communication meet the eye of Doct. DADD, we should be happy to hear his views in regard to it, through your excellent paper.

Knowledge upon this subject can do the horse growing farmers no harm—perhaps, much good. What he begins ignorantly to accomplish, is easi-

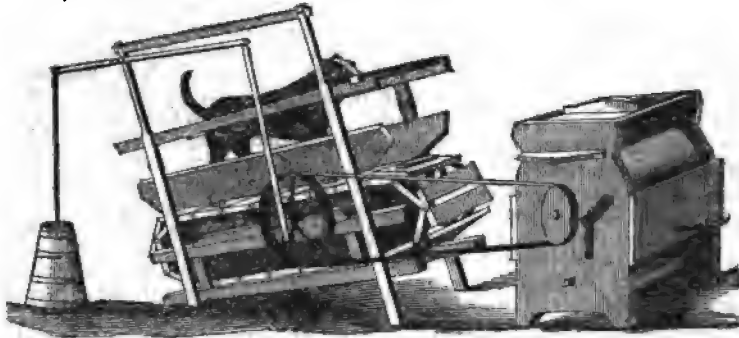
ly finished by an unskilful farmer, and a hard, cruel driver. Yours truly,
New York, June 13, 1854. H. P.

REMARKS.—There are few subjects which demand the attention of the farmer more than that of the proper management of the horse. A good horse, sound and kind, one that will work in any harness,—one that is not skittish, will not stumble, kick, overreach or interfere, and that is active in the carriage as well as steady on the farm, is now considered so valuable by those keeping but one, that scarcely any price will induce its owner to part with him. Such animals are very rare. The practice alluded to by our intelligent and observing correspondent, is quite common, and ought to be discontinued, and the floor occasionally washed with cold water and sprinkled with plaster or weak copperas water. The efforts of Dr. DADD, a veterinary surgeon in this city, are calling more attention to the horse than has been given him heretofore, and we think will have a decided tendency, not only to improvement in the animal himself, but in the modes of treating and managing him.

CORK.

Cork is nothing more or less than the bark of an evergreen oak, growing principally in Spain and other countries bordering the Mediterranean; in English gardens it is only a curiosity. When the cork-tree is about fifteen years old, the bark has attained a thickness and quality suitable for manufacturing purposes; and after stripping, a farther growth of eight years produces a second crop; and so on at intervals of even ten or twelve crops. The bark is stripped from the tree, in pieces of two or three inches in thickness of considerable length, and of such width as to retain the curved form of the trunk whence it has been stripped. The bark peeler or cutter makes a slit in the bark with a knife, perpendicularly from the top of the trunk to the bottom; he makes another incision parallel to, and at some distance from the former; and two shorter horizontal cuts at the top and bottom. For stripping off the piece thus isolated, he uses a kind of knife with two handles and a curved blade. Sometimes after the cuts have been made, he leaves the tree to throw off the bark by the spontaneous action of the vegetation within the trunk. The detached pieces are soaked in water, and are placed over a fire when nearly dry; they are, in fact, scorched a little on both sides, and acquire a somewhat more compact texture by this scorching. In order to get rid of the curvature, and to bring them flat, they are pressed down with weights while yet hot.

TO FARMERS.—The *Hartford Times* mentions a farmer who took up a fence after it had been standing fourteen years, and found some of the posts nearly sound, and others rotted off at the bottom. Looking for the cause, he discovered that the posts which had been inverted from the way they grew were solid, and those which had been set as they grew were rotted off. This is certainly an incident worthy of being noted by our farmers.



CHURNING.

As the season of butter-making is at hand, it is a proper time to present to the reader whatever may facilitate the operation, and at the same time save manual labor. Churning is a laborious work even with the best churns, and under the most favorable circumstances; and occasionally, when the butter is long in coming, it becomes a discouraging and vexatious labor and one that severely taxes the patience. A gentleman extensively engaged in dairying in Western New York, once informed us that he had long used a machine somewhat similar to the one represented above, and operated it with a cosset sheep, who came at the call of a whistle and did the churning every morning. A large dog, or a child, will also answer the purpose well. The machine is now made so as to be very light, yet with sufficient strength to do the churning of a large dairy, or to drive a grindstone, or to be applied to other purposes.

The manufacturers describe it as a simple endless platform, formed upon two india rubber straps, with strips of light wood firmly rivetted to it. This endless platform is supported by a drum, about 12 inches in diameter at each end, and the whole so arranged that it can be elevated to any angle required by the weight of the dog, or work to be done by it.

It will be seen by the cut that the movement produces both the vertical and rotary motion, so that it may be applied to the crank or common dash churns, or both, at the same time. They may be found at the Agricultural Rooms of Messrs. Buggles, Nurses, Mason & Co.—Price \$12.50.

FEEDING POULTRY.—Professor Gregory of Aberdeen, in a letter to a friend, observes:—"As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells or chalk, which they eat greedily, they will lay twice or thrice as many eggs as before. A well-fed fowl is disposed

to lay a large number of eggs, but cannot do so without the materials of the shells, however nourishing in other respects her food may be; indeed, a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat on the walls, would lay no eggs at all—with the best will in the world."

For the New England Farmer.

PROTECTING PEACH TREES.

MR. EDITOR:—In the *Farmer* of last week you make a few remarks on peach blossoms; you ask if any person ever attempted to protect branches of the peach tree by bringing them together in the autumn, and covering them with matting or protecting them in any way other than by snow. In order to protect peach trees in this manner, it is necessary to keep the trees dwarfed by pruning, which may easily be done by beginning while the trees are small, as it is not the cold, but the sudden changes in the weather that we wish to protect the tree from. The covering need not be heavy; I have covered peach trees in the following manner:—take four long spruce poles and set them round the tree with the tops inclined to the top of the tree; tie the poles together at the top, then take some old mats and roll around the tree and make fast to the poles. I do not think it is necessary to cover the trees clear down to the ground, but only as far down as the branches. The result of this covering was a good crop of fruit, whilst the rest of the trees in the orchard were barren and fruitless. I think it is better to leave them open a little at both top and bottom, to admit air in warm weather; the peach being a fruit that is very uncertain in this part of the country, it is very important to try some way to have a few good peaches, for good fruit brings a good price at all times. Yours,

Swampscott, May 29, 1854. BLITHEWOOD.

MIXING SOILS.—The benefit derived from the application of clay to very light, sandy soils, are often most remarkable. Clays may also be much improved by the application of sand, and those whose "garden spots" chance to be in need of either amendment, will find early spring the best time to attend to it.

For the New England Farmer.

ADVANTAGES OF LIVING ON POOR LAND.

MESSERS. EDITORS:—What advantage is there in having a poor parcel of land for a farm? I will try to state the advantages, as I view them, if it would afford any amusement or gratify the curiosity of the reader. To live, stay on, or rather get a living off of poor land, will call latent faculties into activity. If the farmer makes up his mind to get his meat, bread and vegetables, by making poor land better, his thinking powers will be called into exercise to select the best course to be pursued to accomplish his purpose.

In the first place, his faculty of skill will be called into exercise in order to adopt the best method to improve his poor land, then the necessity of his circumstances will confirm him in the habits of industry; and his wallet, not being very highly replenished with cash, will be a practical lecture to him on economy, and his ambition to accomplish his purpose, will excite his energy to action, and hope of reward will prompt him on to perseverance and patience "in well doing" to the time of harvest. Here we can see faculties and talents exhibited and applied to useful purposes which would have continued smothered in the bosoms of the rich, for the want of the compulsive power of necessity to excite them to action. The young man who is solely dependant upon his own efforts and resources, has every faculty for self-support called into requisition. The great display of mental and physical efforts is seldom the result of riches and luxury. The young man in easy circumstances, whose every want is supplied without any of his own exertions, has nothing to arouse or call his native faculties into exercise which have been in a dormant state, and till necessity is forced upon him, they will continue to sleep; he is educated to such numberless wants that it would be impossible to have them supplied from the products of a poor land farm. Would the inhabitants of New England have probably been more intelligent, energetic, industrious, persevering, enterprising, virtuous or even more wealthy had their soil rivalled that of the mighty and far-renowned valley of the Mississippi? Riches and rich land have a tendency to deteriorate, rather than to invigorate both the mental and physical faculties; idleness and dissipation are frequently the offspring of plenty. It was said by a farmer of my acquaintance who had lately bought a large worn-out farm, "that any clown could live on rich land but the man for me, is he that has skill and ability to get rich on poor land," which has frequently been done to my knowledge.

This farmer went to scattering leached ashes and compost upon his poor land, and soon had the satisfaction of seeing his crops, of grass, especially, increased to nearly ten fold. I have known numerous instances of young men of small capital to purchase poor farms because they were cheap, and in a few years become independent farmers, and as comfortable livers as any in New England. Discipline is necessary to make a good soldier, and equally necessary to make a good farmer. The New England farmers have been trained on what western people call hard, sterile land, but this very land has made them what they are;

they are renowned throughout this, if not foreign lands, as a people well-trained in the arts, which require unflinching industry in overcoming obstacles thrown in the way by arbitrary rulers, as well as subduing the rugged soil.

If the land in New England requires three times the labor to produce any given quantity that the western land requires, it is a course of discipline, though rigorous, which has not been without its advantages. If idleness is the mother of vice, industry is the guard of virtue. It has often been said by my western friends, that the habits of the New Englanders were much needed there; they think the leaven of industry might produce a wholesome fermentation which might, ultimately, leaven the whole population.

A modern writer observed that had there been no New England, there would have been no republic in America to boast of. Had the lot of the same men who have subdued the land covered with stumps and stones in New England, been cast upon the richest land of the great valley of the west, it is possible they might have been enervated, and their posterity become a degenerate race. They might have fallen an easy prey to the ambition and domination of the mother country, and to this day, been the humble servants of the British queen. Living on luxuries, sleeping on down, and having all wants supplied without knowing their value, does not qualify men to resist oppression or fill their brains with patriotic blood. Those who boast of living on the proceeds of three days' labor in the week, generally have very little reason to boast of their conduct during the other four days.

It appears by the reports of charitable associations that the residents on the hard soil of New England, subscribe more for various benevolent purposes, than the inhabitants of all the other States in the Union. So we fancy, Mr. Editor, that we can trace out some advantages by being inured to the hard soil and constant employment growing from the necessity of our location as inhabitants of New England. SILAS BROWN.

Wilmington, 1854.

REMARKS.—Excellent. We hope every reader will give this article an attentive perusal, and especially those who find themselves in the possession of poor lands.

WEEDS IN DOOR YARDS.

One prolific source of spurious vegetation on our farms, is the neglect of which too many of our agricultural friends are guilty, to destroy, at the proper season, the weeds which befall their door-yards, and unoccupied places by the roadside.

As the soil in such places is almost invariably affluent in the principles of vegetable nutrition, those weeds which are indigenous, ordinarily flourish with great luxuriance, and if not eradicated with a timely hand, produce an abundant crop of seeds, a very considerable proportion of which find their way in time, and by a variety of ways, to the fields and cultivated grounds, where they radiate, and render the labor of cultivation per-

plexing and unprofitable. Never suffer a weed to mature on your premises; cut down, root up and annihilate all. This is the only true policy. Thistles, white-weed, mullein, burdock, chickory, and a host of other indigenous and exhausting productions, which are of little or no value, are ever ready to spring up, and abridge the profits of the farm, and require no idle hand to hold them in check. All weeds are gross feeders, and sap the soil more than cultivated plants of equal size and weight.

BOOK FARMING A SWAMP.

MR. EDITOR:—I have recently purchased about 20 acres of land, being a slice off from the sides of two adjoining farms, both now vastly too large. The soil is a light loam, perfectly free from stone and beautiful land to cultivate, but in a miserable state of cultivation. In the centre, on either side of the old line brush fence, is a muck swamp containing about two acres, which has been covered with alder bushes time out of mind, and has been the receptacle of the wash of the highway ever since the settlement of the town. In 1851, I let out the land at the halves, while erecting my building, and took what the unlucky tenant pleased to give me, which I assure you was not much.

The last season I carried it on myself, and I increased the potato crop 55 bushels to the acre, the corn crop 20 bushels to the acre, and oats 20 bushels to the acre. I planted about an acre of corn on land so poor that the man of whom I purchased said it would not raise corn at any rate, and so all my neighbors said; but as I knew nothing about farming, I was fool enough to try. I began by carting 40 loads of manure, about half horse and cattle manure, rather strawy. I then plowed it, holding the plow myself, and I put in pretty much all but the beam and handles, and I must confess, that after the operation the land looked rather pale; but as "revolutions never go backwards," I was determined to go ahead. I took care that the manure was covered immediately after spreading—I then put into the hill, on about three-quarters of the piece, a liberal supply of the very best stable manure from a neighboring barn-cellar, and on the remainder I put swamp mud, that was carted out the fall before, and mixed with barn-yard manure in the proportion of one load of manure to eight of the muck.—Both patches were cultivated alike.

Now for the results. In four to six weeks from planting, the corn where muck was used, would weigh at least four times as much as the other, and was much more even and of a better color. Many of my neighbors examined the piece, and were perfectly astonished at the difference in favor of the compost, at the same time, remarking that the other would overtake it before harvest. The other did gain upon it, but was never nearly as sound and heavy. The difference, in the fall, was strikingly apparent. The crop I did not measure, but it was admitted on all hands, that more than an average crop was raised on what was termed a miserable piece of land wholly unfit for corn.

Now, Mr. Editor, that is book-farming, for I know very little about any other, and I intend to book-farm that swamp on to the rest of my land,

after having prepared it in a barn-cellar; and if the land won't produce better crops than it did in other hands, then I will emigrate to the West, that's all. I do not think compost better for the land than stable manure, but I believe for a corn crop it is worth fifty per cent. more. w.
—*Journal of Agriculture.*

For the New England Farmer.

SHALL I BE A FARMER?

"Shall I engage in farming, and when," is the inquiry of your correspondent B., in the *Farmer* of the 6th inst. The question is asked of Massachusetts farmers; but a New Hampshire farmer ventures an answer,—which is, certainly engage in farming, if you are an intelligent, enterprising and industrious man,—and being a subscriber to the *New England Farmer*, is indication of intelligence at least. We want you to engage in the most ennobling calling that occupies human beings—cultivating the earth.

On the other hand, if you are a stupid dolt, believing that Adam and Abel knew all that is necessary to know about farming and rearing flocks, and that scientific culture is a humbug, and agricultural papers are a nuisance, then be advised to go thy way to college and a profession, or any where else, rather than to the farm, for the generous earth now mourns and looks sad by reason of so many stupid cultivators.

As it is of less consequence where a man is than what he is, if you are of the right sort, you need have no difficulty in selecting a spot of earth for a farm, that needs your care, and will reward abundantly your labor, both of head and hand.

Yours truly,

W. H. FARMER.

For the New England Farmer.

WASH FOR FRUIT TREES.

Various compounds are recommended as washes for fruit trees,—as potash, ley, soda, white-wash, &c. In the January number of the *Farmer*, D. W. L. advises a mixture of soap suds, soap stone dust, lime and ochre, an application of doubtful utility I should think. Some of the above I know have proved injurious and destructive, and others I think rather objectionable. The design of all washes should be to free the bark of foreign substances—as dust, moss, insects, &c., cleansing the bark, opening the pores and stimulating to healthy action. I have used with good effect, soap suds (for economy) that in which clothes have been washed, applied very freely with a sponge, and in some instances with a soft scrubbing brush. For two years past have used once during the growing season, (the month of June I prefer) soft soap, 1 part, soft water 2 parts, applied with a swab and rubbed quite hard; it should be used during damp weather or just before rain.

Cultivators of fruit trees now are very much annoyed with the green aphid, the bark and scab louse;—the woody aphid, has also made its appearance. For the first on apple trees I find a decoction of Quassia a perfect remedy. I make it quite strong—1 lb. of Quassia chips (costing 8 cents) to 8 galls. water boiled to 6 galls., applied with a garden syringe. To two or three trees badly infested, I found it necessary to make a second application. Previous to this experiment, the

trees had entirely ceased growing, the leaves curled up, and with the shoots and small limbs, became discolored and dirty. I tried various remedies with but little benefit, until at last I heard of Quassia. The trees in each instance soon after commenced a second growth, making vigorous shoots, entirely free of the aphid. I presume this decoction will prove equally efficacious and harmless on other varieties of trees, but have not tried. A white-wash of soft soap, water and lime is recommended for the bark louse. I have not tried it, but feel prejudice against any application which will form such a lasting coat—closing the pores of the bark. I believe that soft soap diluted with the Quassia water, will prove a remedy if applied early in the season, while the insects are young; I intend trying it. Will some of your correspondents experienced in this matter, advise as to the best mode of ridding our orchards of these destructive insects?

A. G. H.

Waukesha, Wis., 1854.

OUT-DOORS AT IDLEWILD; OR COUNTRY-LIFE WITHIN CITY REACH

BY N. P. WILLIS.

I find the farmers generally willing to admit that a boy's work for *four hours a day*, would fairly pay for his board. In pushing inquiry as to the different kinds of farm work, I find, too, that there is but a small portion of it which is beyond the strength of a well-grown lad of fifteen. For ditch-digging, hay-pitching, cradling of grain, wall-laying and heavy plowing, they would depend, of course, on the main strength of a regular "hand;" but for sowing, light-plowing, hoeing, weeding, carting and scattering manure, reaping, thrashing, and all the lesser industries of stock-tending and barn work, a smart boy is often as capable as a man. This applies to grain farms, or to those mainly devoted to hay and stock. Where the produce is only fruit or vegetables for the city market, the work is easier, and perhaps the whole of it could be done by boys.

But boy-labor, to be reliable for the master, must not be boy-slavery. It must be enlivened and steadied by an understood footing of reciprocities between boy and master—both having an interest in its being faithfully done. And this is a state of things that could not be entered upon to-morrow—with the present general idea of how boys may be used. Information is sadly wanted on this subject. The most valuable addition that could be made, just now, to "literature for the people," would be a manual of boy-employment and treatment—defining his rights like those of a hired man, giving the terms of an agreement for his labor, specifying his privileges of spare time and agricultural instruction, describing the care of him by the mother of the family, and plainly stating the ways to make him think for himself and respect himself, and so be thought of and respected by those around him. With this kind of understanding, every intelligent farmer could profitably take half a dozen boys to work with his one or two hired men, and teach them farming while allowing them to play enough and read enough as well as earn enough—a Utopian idea for the present, perhaps, or, one at least by which the poor boy is not likely to profit for a while.

There is a class of boys, however, for whom I think a beginning might be made immediately practicable—the sons of parents who could clothe them, provide them with books and see to their schooling and incidental wants for the first year. [The clothes, by the way, are the sore spot in *boy wrongs* in the country, and the extinguisher to that *boy pride* without which his character becomes the fruitful soil for rustic meannesses. Among the old farmer's "dodges," the excuse for all his overworkings of the boy is "the money it costs to clothe and school him"—while the poor lad's habiliments are the remainders of the old man's worn-out coats and trousers, fitted and patched with such skill and taste as Heaven may have vouchsafed to the old woman's needle. The consciousness (No. 1) with which the "young farmer" walks about in a pair of patched and big-breeched pantaloons "fitted" by only cutting the legs off at the knee, and the consciousness (No. 2) with which he hears himself glorified by a political orator, a few years after, as the country's "independent bulwark," "bone and sinew," "nature's gentleman" and "best citizen," are two points between which, to say the least, there is a — chasm.]

There are progressive steps of agricultural life under this phase, of course, which would follow in due succession. A literature for the boy-class of farmers is wanted—beginning with a simplification of so much of the science of soils and products as the youthful mind could readily understand. Other and correlative knowledge might be selected and combined into a series expressly designated *THE YOUNG FARMER'S LIBRARY*. A newspaper for them would soon flower upon this stem, and it is not difficult to imagine that the pride and enthusiasm of boys throughout the country might thus be gradually interested in the pursuit.

One word as to an important point—the subsequent setting up of the young farmer for himself. It would be but a "middling sort of chap," in this part of the country, who should have lived and worked in a neighborhood, for years, and not have character and credit enough to get trusted for land to live upon. Almost every one of our oldest and now independent farmers took his land originally on that tenure. But, while a much smaller quantity of land is wanted for the skilful and well practised gardener, the profits are far beyond those of ordinary farming. The soil increases in value, too, under the hand of the cultivator. By purchasing forty acres, he could so improve, while taking off crops, that twenty would sell, after four or five years, for more than the cost of the forty. This has occurred so often, as to be calculated on, among regular prospects and resources. And it is for this facility of a first start on arriving at manhood—a start upon character without capital—that I should advocate the education by boy labor upon single farms, in preference to education in Farmers' Colleges. Ever so well instructed in a large institution, the youth is adrift, when he leaves it. To have a farm, (as a stranger wishing to settle anywhere,) he must buy and stock it, with "money down." And not only has the laboring boy the advantage of having supported himself, and extended his roots of character and credit where he means to grow and flourish, but the practice of his agricultural education has been upon the soil, and in the climate,

and among the associations, where his future industry is to be applied. He is already at home when he begins—already familiarized with the obstacles and resources which so vary with different locality.
—*Home Journal.*

CHIMES FOR THE TIMES.

Be ye not jealous over-much,
But hope, and time will make you better:
There is a faith care cannot touch,
Which leaves the soul without a fetter.
O, it is but a sorry creed
To look for nothing but deceiving—
To meet a kindness, in your need,
With a smile of misbelieving!
The tide of ill is not so strong;
Man loves not always wrath and wrong.

It cannot be that every heart
Is steeled so much against its neighbor;
Let each with reason play his part,
And fruit will spring from out the labor;
Progressing still life's journey through,
Be just and kind towards your fellow,
Remembering whate'er you do,
That duty spreads the smoothest pillow;
And ne'er the hand of friendship spurn,
But trust, and man will trust in turn.

Some men there be who deem it good
In trade to overreach a brother;
And some who would not, though they could
Upraise a hand to help another;
They deem not, though convulsions wide
May show the earth by danger shaken,
That still of hearts unjust through pride
A dark and true account is taken;
Kingdoms may quake and thrones may fall,
But God is looking over all.

O, join not then the strifes of men,
But hourly show, by waxing kinder,
That ye have reached the moment when
Reason no more is growing blinder!
And though ye hope that time should yield
A change for each benighted nation,
Seek not at first so wide a field
To sling the seeds of reformation;
But sow them first in hearts at home,
Then trust in God, and fruit will come.
Ansfield Pottery, Glasgow.

WM. LYLE.

For the New England Farmer.

FOREST TREES FOR TIMBER.

How can these be successfully cultivated?

A primary purpose of the Legislature, in giving money to Agricultural Societies, was, to encourage the growth of such trees. Accordingly, for thirty-five years premiums were offered by each of the Societies favored by the bounty of the State;—but where are the trees? If you, Mr. Editor, can point to any plantation that has sprung up by reason of these offers, and grown to be worthy of notice, I should like to know it. That such trees will grow on our soil, there can be no doubt. The time is coming when an imperative necessity will exist, for their being made to grow.

When the generous offer of one thousand dollars cash, was made by R. S. FAY, Esq., of Lynn, for the ten best acres of oak, grown from acorns, on common pasture land, I had hoped that some of the owners of many acres of such land, from which little or no income is realized, would have been induced to make the experiment. This offer was made eight years since, payable in five years.

But one claim has been presented, a brief statement of which, will be found in the last volume of *Massachusetts Agriculture*, pages 116 to 119. In relation to which, the committee who watched its progress, (consisting of gentlemen of as much experience and observation as any in the country,) say, "if the land is of any value for any other purpose, it will not pay for continuing a fence about it for this purpose,"—that is, in the manner in which this plantation was conducted. There was no want of zeal or knowledge in the gentleman who made this plantation—the land was in a timber growing region, where oaks have flourished for centuries—but still, the committee say, the culture will not pay.

Allow me to suggest, whether a few of the acres on the State farm at Westboro' cannot with propriety be appropriated to an experiment of this character. What more delightful appendage to such an Institution, than a flourishing grove of oaks? Let different modes of rearing be tried, and their various progresses be noted and reported.—Sixty years hence, when the boys who may assist in depositing the acorns, shall themselves be among those entrusted with the care of the Institution—they will bless the memory of those who suggested the experiment.

Essex.

May 15, 1854.

EFFECTS OF CLOTHING ON THE HUMAN SKIN.

The *London Lancet* presents some excellent ideas on the subject of clothing. Let a person in bed be covered with sufficient blankets to promote perspiration, and let these blankets be covered with an oil or India-rubber cloth, or other impervious fabric; in the morning the blankets will be dry, but the under surface of the India-cloth will be quite wet. The blankets, by their dryness, show that the exhalations of the body pass through them, and would pass through them to the surrounding air had they not been intercepted by the impervious outer covering. Thus it is inevitable that the habitual use of an impervious covering is injurious. Its effect must be to place the body in a constant vapor bath, in which the insensible or healthy perspiration is constantly becoming condensed into the form of humidity, and being prevented from passing off in its elastic and invisible form, the perspiration is thus constantly checked, and akin eruptions must be the result. Nevertheless, it must be less injurious to check perspiration, in some degree, by a water-proof overcoat, than to get soaked with rain. There can be no doubt but water-proof fabrics may be made very light, and so formed as to be worn in wet weather, and yet allow some room for perspiration. But still they are not healthy, and should never be put on but in cases of extreme necessity.

Any person who has worn a water-proof outer garment for some time, knows by experience that it causes weakness and chills. No person should wear a garment but such as allows the vapor or perspiration which is continually exuding from the skin to pass off freely. For this reason a frequent change of entire clothing conduces to health. Clothing should be light and warm, and not too tight. A happy change in the fashions has taken place within a few years; it is the substitution of loose outer garments for the old-fash-

ioned, tight, close and pinching overcoats. Too few flannels are worn in America, especially along the eastern coasts, where sudden changes are frequent, and where many cold rains fall during the winter season. Children should always have their outer garments for winter made of woollen materials. Although India-rubber over-shoes are excellent for walking in the street in wet weather, or when there is a thaw with snow upon the ground, they should never be worn at any other time, and should be taken off as soon as the wearer enters a house. They prevent perspiration in a great measure, and are only useful as a lesser evil than getting the feet completely wet from outside water.

INTRODUCTION OF DOMESTIC ANIMALS.

The following account of the introduction of domestic animals into this country has been condensed from the Census Report. It furnishes a clue to the origin of our native cattle:

The first animals brought to America from Europe were imported by Columbus, in his second voyage, in 1493. He left Spain as admiral of seventeen ships, bringing a collection of European trees, plants, and seeds of various kinds, a number of horses, a bull, and several cows.

The first horses brought into any part of the territory at present embraced in the United State were landed in Florida by Cabeza de Vaca, in 1527, forty-two in number, all of which perished or were otherwise killed. The next importation was also brought to Florida, by De Soto, in 1539, which consisted of horses and swine, among which were thirteen sows; the progeny of the latter soon increasing to several hundred.

The Portuguese took cattle and swine to Newfoundland and Nova Scotia in the year 1553. Thirty years after, they had multiplied so abundantly that Sir Richard Gilbert attempted to land there to obtain supplies of cattle and hogs for his crew, but was wrecked.

Swine and other domestic animals were brought over to Arcadia by M. L'Escarbot, a French lawyer, in 1604, the year that country was settled. In 1608 the French extended their settlement into Canada, and soon after introduce various animals.

In 1609, three ships from England landed at Jamestown, in Virginia, with many immigrants, and the following domestic animals, viz: six mares, one horse, six hundred swine, five hundred domestic fowls, with a few sheep and goats. Other animals had been previously there. In 1611, Sir Thomas Gates brought over to the same settlement one hundred cows, besides other cattle. In 1610, an edict was issued in Virginia, prohibiting the killing of domestic animals of any kind, on penalty, of death to the accessory and twenty-four hours' whipping to the concealer. As early as the year 1617 the swine had multiplied so rapidly in the colony that the people were obliged to palisade Jamestown, to prevent being overrun with them. In 1627, the Indians near the settlement fed upon hogs, which had become wild, instead of game. Every family in Virginia, at that time, which had not an abundance of tame hogs and poultry was considered very poor. In 1648, some of the settlers had a good stock of bees. In 1667, sheep and mares were forbidden to be exported from the province. By the year 1723, or before,

sheep had somewhat multiplied, and yielded good fleeces.

The first animals introduced into Massachusetts were by Edward Winslow, in 1624, consisting of three heifers and a bull. In 1626, twelve cows were sent to Cape Ann. In 1629, one hundred and fifteen cattle were imported into the plantations on Massachusetts Bay, besides some horses and mares, and several ponies and forty-one goats. They were mostly ordered by Francis Higginsons, formerly of Leicestershire, whence several of the animals were brought.

The first importation into New York was made from Holland, by the West India company, in 1625, comprising one hundred and three animals, consisting of horses and cattle for breeding, besides as many sheep and hogs as was thought expedient.

FARMER'S GARDENS.

As a general thing, farmers do not provide themselves with good gardens; at least, so far as the writer has travelled, he has seldom seen what he would call a good garden on farms. The excuse for this neglect is generally the same with all of them—they "have no time to attend to such small matters." And yet it may safely be asserted that an acre of ground appropriated to a good garden, will be more profitable to the farmer than any other ten acres of the farm. The interests of the farmer, the comforts of his family, the good condition and health of his whole household, require such a garden on every farm in the country. And it should be a garden, not a mere excuse for one, a mere weedy patch. It should be one so managed and arranged, that every vegetable of a wholesome quality for human food should be raised in it, in perfection, and at the earliest season. After a winter's diet on solid and generally salt animal food, the human constitution requires the deterring operations of free vegetable and fruit diet, and as a general rule no one can dispense with it safely. Besides this, the natural appetite calls for it, and there are few pleasures that may be so safely and even beneficially indulged in. In the latter part of winter and early in spring, measures should be taken to secure early vegetables of all kinds capable of very early cultivation. Details will not be expected here; there are other books and papers appropriated to such information; but I cannot help saying that when I am at a farm house, at a season when early peas, beans, cabbages, cucumbers, potatoes, green corn, lettuce, &c., are properly in season, and find none of these luxuries on the table, nothing but the blue beef, salt pork and beans or potatoes of winter, I am free to say I do not envy that farmer's life, nor his family their enjoyments. These very people are fond enough of such things when they go to the city, and it is not, therefore, want of taste. It is simply the fault of negligence. Why may not every farmer in the State have every kind of early vegetables on his table as early as any gardener near the cities can raise them? There is not a single reason why he should not, while there are a great many why he should. The gardeners have to incur a very considerable expense in procuring hot manure for their hot beds, while the farmer has it in his barn-yard. The gardener has every thing to purchase, and draw a considerable distance, while the farm-

or has nothing to buy. The small quantity of lumber required is probably rotting on his premises. It would only be a source of amusement during winter, for him to construct the frame of a hot bed and prepare the manure and bed for use. Having done this, and got his plants in a thrifty state, he can in a short time, when the season arrives, get his garden ground in order and make his plantations. And then he will have all these vegetable luxuries as early as any of his town friends can purchase them. It only requires a little industry and attention to accomplish this, and as said before, his enjoyment, his health, and even his interest, as well as the comforts of his family, will be benefited by it.—*Country Gentleman*.

FARMING.

Among the most vigorous class of people the farmer may be found. There are many ways by which man of this present age procure the necessities of life: but no occupation is more conducive to health and happiness than farming. There are several ways by which this may be exemplified.

First.—In order to make the muscles of the human body rigid and strong, they should all receive their due proportion of exercise. Those trades and kinds of exercise that tend to give every muscle its proper share of action, both of the upper and lower extremities, are most salutary, as it tends to develope and strengthen them equally.

Second.—The purer the air we breathe, the longer can the muscles be employed in labor. What department can be more thoroughly ventilated than the open fields?

Third.—Light has as great an influence upon man as it has upon the plant, particularly that of the sun. You have doubtless noticed a plant that grows in the shade is weak and pale. The same is true of man; both, in order to make them strong, require the stimulus of this great agent.

There might be numerous other reasons brought forward to show that farming is most conducive to health; but it is useless to multiply them. In regard to happiness, I would ask but one question to be resolved in your minds. What is health but happiness? Knowing that farming promotes the greatest blessing, let each and every one of us be engaged in this business, for shop work, (particularly shoe making) does not bring the lower limbs into any action while the upper limbs are constantly employed. The air in-doors, where laborers are employed, is not so healthy as it is in the great department or shop, owned by Uncle Sam, which was not planned by man, and needs no ventilation. In-door work is not exposed to solar light; hence let us devote ourselves to that which affords us the purest air, and which exercises the muscles in the right mode; and that, as we have already proved, is Farming.—*Farmer and Mechanic*.

AN EXCELLENT PLAN FOR GROWING CUCUMBERS.

—We clip the following from an exchange. We have tried the same plan and proved its excellence.—*Amer Agr*.

Take a large barrel, or hogshead; saw it in two in the middle, and bury each half in the ground even with the top. Then take a small keg and bore a small hole in the bottom; place the keg in the centre of the barrel, the top even with the

ground, and fill in the barrel around the keg with rich earth, suitable for the growth of cucumbers. Plant your seed midway between the edges and the keg, and make a kind of arbor a foot or two high for the vines to run on. When the ground becomes dry, pour water in the keg in the evening—it will pass out at the bottom of the keg into the barrel and rise up to the roots of the vines, and keep them moist and green. Cucumbers cultivated this way will grow to a great size, as they are made independent both of drought and wet weather. In wet weather the barrel can be covered and in dry the ground can be kept moist pouring water in the keg.

THE MODERN HORSE DOCTOR.

This is a new work, containing practical observations on the causes, nature, and treatment of disease and lameness in horses, embracing the most recent and approved methods for the preservation and restoration of health. With illustrations. By GEORGE H. DADD, M. D. Boston: John P. Jewett & Co. Cleveland, Ohio: Jewett, Proctor & Worthington.

We know Dr. DADD well, and are satisfied that he possesses most important qualifications for preparing such a work as he has placed before us, viz:—the habits of a student, and the most untiring application of all his energies to the cause in which he is engaged. In many respects this is the best work we have seen on the subject of the diseases of the Horse. It treats of some diseases which have come before us, but which we have not before seen described and prescribed for, and what is a thousand times better, it denounces with a humanity creditable to the author, the barbarous practices which have prevailed through many years. This book advocates no burning of the mouths of colts with red hot irons, or drenches of oil of turpentine or nitrous and sulphuric acids. It is well printed, and illustrated with twelve very appropriate and interesting engravings. We shall have occasion to refer to it again.

For the *New England Farmer*.

THE MULBERRY AND SILK WORM.

MR. EDITOR:—Will you allow me to make some inquiries through the columns of your valuable paper? There are near my residence some thirty or forty mulberry trees, and I wish to inquire if the silk worm could not be reared and the cocoons sold to some advantage; and if so, where they could be sold?

What is the expense of the machinery required to manufacture sewing silk, and where it can be procured? Also, where the eggs can be procured? If you, Mr. Editor, or any of your correspondents, will answer these inquiries, or give any information on the subject, it would very much gratify
A NEW HAMPSHIRE GIRL.

REMARKS.—We hope some of our young correspondents will be able to answer the above inquiries—we possess very little knowledge of the subject.

For the New England Farmer.

DOUBLE PLOWS.

MR. EDITOR:—I recently took on trial, have bought and am now using a double or Michigan Plow, of which I wish to say a few words to your readers, if, peradventure, there be any among them who doubt or are ignorant of the superior excellence of that plow over all others.

And, brother farmers, the best advice I can give you is, try it! try the Michigan plow, with a view to your own advantage, fully and faithfully, and you will be convinced that it is one of the things needful for the more successful cultivation of our *top-worn* and *surface exhausted* soil.

I have used my plow on plain and side hill, among briars, bushes and roots, turning furrows from six to twelve inches deep, and cutting from ten to sixteen inches wide, and every trial has been satisfactory, though I took hold of the matter, at the outset, faithlessly and reluctantly. And I now declare that I will use no other plow on sward land till some benefactor of his race (and who is more worthy of that application than he who invents a really useful agricultural implement?) shall produce an improvement upon the Michigan.

Upon the importance of deep plowing, most intelligent cultivators agree; and this is the chief excellence of digging deep and at the same time turning completely over a wide furrow slice, hiding all grass that may be growing on the sod, with finely pulverized soil. It is sometimes objected that soil turned up from a great depth is cold, dead and worthless; which if true, is obviated by the use of this plow, as it, instead of solely inverting the furrows, at the same time mixes and mingles the bottom and top soil together, thus producing just the result desired.

As it regards the strength of team necessary to use the double plow, I am convinced that four oxen will draw it easier than any other, doing the same amount of work, regard being had to the depth and width of furrow slice. E. J.

Lebanon, N. H., May 15, 1854.

For the New England Farmer.

HAY OVER THE CATTLE.

MR. EDITOR:—I have often queried whether there was any truth in the saying, that injures hay to lay on a scaffold over stables where cattle are kept through the winter. I, as most people do, select the best hay for oxen and cows, and put it upon scaffolds, where the same are stabled. I have often noticed the cattle would eat hay from the bays in preference to the scaffold hay. Now I wish some one more experienced than myself to answer the question, whether it does receive an injury?

Yours truly,

NORTHERN SUBSCRIBER.

Canaan, N. H., May 15, 1854.

REMARKS.—In barns that are tight, we have no doubt that hay receives some injury in being over the lean to where cattle are tied. A gentleman recently informed us that an examination into this matter was made last year in the town of Grafton, this State, by several persons, and they found the hay on scaffolds considerably affected, and, as they

concluded, depreciated in value, by remaining over the cattle.

INDIAN MODE OF STORING THEIR WINTER SUPPLY.

This very brief sketch of the agriculture of the Indians would not be complete, without an allusion to their mode of storing their winter supply. Large holes were dug in the earth, and the sides carefully lined with bark. This was also the work of the women. The corn and the beans, after being dried in the sun, or on racks or flakes over a fire, were thrown into these holes, and then covered up level with the surface of the ground. They were thus preserved, if necessary, through the winter. These excavated barns were carefully concealed, by the women, from their lazy husbands and sons, lest they should discover and eat up all; yet, with all care they could take, the hogs of the colonists often unhinged their barn-doors, and helped themselves to the golden treasure. History says, that one of these Indian barns was discovered by the Pilgrims, at a time when their store of grain was so reduced as to contain but five kernels of corn to each individual.

In addition to this provision for winter, they sometimes made large boxes of wicker-work, or bags or sacks of hemp, which were filled and kept in the wigwam, for the more immediate wants of the family. Grass they had no occasion to cut, though it grew in great abundance along the marshes and the rivers, and in places which had been cleared for cultivation. It was of a coarse quality, yet it made the only hay used by the colonists for some time after the settlement.

To the rude implements used by the Indians, the colonists added the plow. We may well imagine the surprise of the natives at the first sight of a plow. They could not understand so complicated a machine. They wanted to see it work, and when it tore up more ground in a day than they, with their clam-shells, could scrape up in a month, and they saw the colter and the share to be of iron, they told the plowman if he was not the devil himself, he was very much like him.

The first sight of a ship, it will be remembered, had excited their wonder even to a greater extent. To them it was a floating island; its masts were nothing but trees; its sails were clouds; its discharge of guns was thunder and lightning; but, as soon as the thunder and lightning ceased, they pushed off their canoes to go and pick strawberries on the island!

After this cursory survey of the method of cultivating the earth, in practice among the Pilgrims and their Indian neighbors, we are better prepared to trace the progress of agriculture down to the present day. It was, at first, the only pursuit of the settlers, and long continued to be their chief occupation.

We have seen that poor and miserable cattle, poor and miserable implements—yet both as good perhaps, as the time and their means afforded—and poor and miserable ideas of farming, characterized the agriculture of the first English settlers. Nothing was done which was not forced upon them by the pressure of necessity. Their wants were so many, that it required their most vigorous exertions to provide what was indispensable, and they had no time to seek out new principles of ag-

ricultural science or improvements in practical agriculture.

The first few years were spent in extending the settlement, exploring the country, and seeking for new and better lands. In the space of thirty years, no less than forty small towns were incorporated, of which Springfield was the most western. An attentive observer is struck by the restless disposition to move from place to place, even in the early days of the settlement. Land new and rich in mould, the accumulation of ages, did not require very careful cultivation, to secure an abundant return. But a few years of constant cropping exhausted its productiveness. The proprietor could easily obtain other lands, to be subjected to the same process. He raised wheat until the land became too poor, and then he raised corn; and when it would no longer produce corn, he sowed barley or rye, and so on to beans.

The number of intelligent cultivators was few, and for the most part agriculture was in a state of extreme depression. This state of things continued with little change, down to the period of the Revolution. That it was so, will appear strange, when we consider that even in England, where land was high, comparatively, and the demands for produce much greater than here, there was, during the same period, none of the interest and enterprised which have since changed the whole face of the kingdom.

It should be mentioned, however, that in 1747, the Rev. Jared Eliot, of Connecticut, began the publication of a series of essays on farming, full of valuable suggestions, and marked throughout, by a degree of intelligence and good sense far in advance of his time. His experiments in draining, and in the improvement of salt marsh, are among the earliest attempts at real progress in the country.

But, with very few exceptions, there was no spirit of inquiry to give a charm to agricultural labor, and it was performed by the farmer as an evil which must be endured, from stern necessity. Having no love for his occupation, he paid no attention to the selection of the best stock, and the best seeds. Owing to the imperfect provision for schools for the great body of the people, the boy was trained up to a narrow routine of labor, as his fathers had been for a century before. He often affected to despise all intelligent cultivation of the soil, and not only scrupulously followed the example of his fathers, but also advised others to do the same; thus transmitting to us in the line of succession, the very practices which had originally been derived from the uncivilized Indian. The manner of settling new lands being such as has already been described, it will be seen that the population must have been scattered over a large extent of territory by the middle of the last century. Ten counties had been incorporated, and one hundred and forty towns. The proportion of the population collected in the great centres at that time, was comparatively small. Boston contained less than fifteen thousand inhabitants, and next to that stood Marblehead; but it might almost be said, that in neither of these did the houses quite shut out the woods and the fields; for in the former,—by far the largest town in the State,—the space now occupied by the Common and the western slope of Beacon Hill, including all the western part of the city, was used as a pasture

for cattle. The spots where some of our most flourishing towns and villages now stand, were then covered with a dense forest.

Few of the rural population of that day saw a newspaper or a journal of any kind. At the commencement of the last century there was not one published in the State, and in 1750 there were but four. The circulation of these was confined, for the most part, to the metropolis; a few copies being sent to clergymen in the country. There were but six in 1770, and one of these was discontinued in June of that year, for want of support. The facilities of travel were so limited that few of the farmers ever went beyond the borders of their own towns, unless it were to market. It will be seen, therefore, that there was no opportunity of cultivating those larger and more generous sentiments which now mark the progress of civilization, and the spread of knowledge and intelligence among the people. Obstinate adherence to prejudice of any kind, is now generally regarded as a mark of ignorance or stupidity. A century ago, the reverse was the case. In many a small country town, a greater degree of intelligence than was possessed by his neighbors, brought down upon the farmer the ridicule of the whole community. If he ventured to make experiments, to strike out new paths of practice, and adopt new modes of culture; or if he did not plant just as many acres of corn as his fathers did, and that too in "the old of the moon;" if he did not sow just as much rye to the acre, use the same number of oxen to plow, and get in his crops on the same day; or hoe as many times as his father and grandfather did; if, in fine, he did not wear the same homespun dress, and adopt the same religious views and prejudices, he was shunned in company by the old and young, and looked upon as a mere visionary. He knew nothing of a rotation of crops. With fire-places adapted to make the largest quantity of ashes, he had no idea of their use, and would have sold them for the smallest pittance in money. The use and value of manures were little regarded. Even so late as within the memory of men still living, the barn was sometimes moved away to get it out of the way of heaps of manure, by which it was surrounded, because the owner would not go to the expense of removing these accumulations, and put them upon his fields.

The swine were generally allowed to run at large, the cattle were seldom housed or enclosed at night, during the summer months, the potato patch often came up to the very door, and the litter of the yard seldom left much to admire in the looks of the barn or the house. Men who suffered their cattle to run loose in the summer nights, thought it necessary to let them run at large very late in the fall; and to stand out exposed to the severest colds of winter "to toughen." Orchards had been planted in many parts of the State, but the fruit was mostly of an inferior quality, and used mainly for the purpose of making cider.

In the latter part of the last century many left the seaboard and removed to the interior, to avoid the inconveniences arising from the difficulties between this country and Great Britain, and other causes. More attention seems, then, to have been paid to agriculture. The population had now become scattered over the whole State, and the whole territory had, in 1790, been incorporated into towns or districts. Men had begun to emi-

grate to the so-called inexhaustible West; which at that time, meant Central or Western New York.

A few public spirited and patriotic men now began to see the necessity of some such associated effort as should excite the public mind to such action as would lead to the development of the industrial resources of the State.—*Report of Sec. of Board of Agriculture.*

SLIMY SLUG.

[*SELANDRIA CERASI.*]

This insect is extensively known to pomologists as an inveterate enemy to the pear tree. It frequently makes its appearance all at once, and in such numbers, as well nigh to baffle the most energetic efforts to destroy or arrest them. They commence depredations, generally, on the upper surface of the leaves, eating out and entirely destroying the soft sapid substance forming the connections between the ribs, leaving each leaf upon which they locate and prey, in appearance, like a sieve bottom, or a piece of loosely fabricated gauze. Their physiological appearance bears no similitude to that of the canker-worm, being shaped nearly like a tad-pole. Their color is dun, sometimes quite dark, and their length is from an eighth to half an inch, but rarely more.

Downing speaks of this insect in his work on the "Fruits and Fruit Trees of America," page 328; and it is also mentioned by Kenrick, in his "Orchardist," page 55. Both of these authors recommend similar means for its destruction, and to them, all who are interested are respectfully referred.

A writer in an Eastern paper, remarking upon the *Selandria Cerasi*, by which his pear trees had been greatly injured, says:—"I bought, a month since, a garden syringe; also, a keg of whale oil soap, for seventy-five cents, and with these two articles of trifling cost, have destroyed thousands of flies, slugs, and worms, which infest plum trees, hop, melon and other vines. The soap will make even a full grown caterpillar wink, and derange his appetite effectually."

Another cheap and effectual method of destroying the "slug," is given by the same writer as follows:—"Take a piece of very coarse cotton cloth, say twenty inches square, and tie up the corners of it, enclosing one or two quarts of air-slacked lime, or unleached ashes therein, and make it secure to the end of a long, light pole. In the morning, while the dew is on, elevate the sack above the topmost branches of the tree, striking the end of the pole with a small mallet, occasionally, and moving the pole or sack about till every leaf is finely dusted over with the lime or ashes. This operation need not be repeated, if once thoroughly performed. The time requisite for a full grown tree is not over five minutes. Pear trees should be scraped, both tops and trunks, in

May or June, and washed with a mixture of soft soap, lime and green cow manure, put on with a brush, as a very thick wash. Have a quart or two of iron scales or cinders broken fine around each tree. It keeps them healthy, and prevents blight. Washing the trunks and larger branches with strong soap suds, is another remedy highly spoken of."

The above recommendations are all well enough in judicious hands; but great care must be used in *scraping*—rubbing is a better term—and in the use of lime. Old plaster from the walls of houses, broken fine, and mixed with pulverized charcoal, bone dust, guano and gypsum, should also be placed around the roots, and incorporated thoroughly with the soil.

There are few departments of farming which more liberally remunerate the farmer, than fruit-growing. Our markets are but imperfectly supplied with many kinds of fruit, which are consequently in great demand, and at high prices.

There is a small "slug" which frequently proves destructive or highly injurious to the clover plant, in its earlier stages of development, and which is easily destroyed by lime. A very slight dressing is said to be sufficient. It is a fact generally well known to agriculturists of intelligence, that a very slight dressing of this mineral will, on light soils, bring in clover, a grass that makes a fine crop of valuable hay, with but very slight impoverishment to the soil. It has also been asserted, that its alkaline properties are effectual in destroying the *fungus* or mosses which often gather on the stems and branches of the trees. Look after the slugs in season.

For the New England Farmer.

ORNAMENTAL TREES.

In the *Farmer* for the present month you copy an article from the *Boston Journal* on the Natural Beauty of Ornamental Trees. Not agreeing with the writer, "R. M. C.," in the article referred to above, I beg leave to make a few remarks on the same. First, the writer sets down those who have the care of the forest and ornamental trees of your city, as ignorant pretenders to the title of gardeners, or foresters; it may be that they are ignorant of what is their duty, either as a gardener or forester, but does that take the name from the man of practice? I mean the man that has studied to be a forester, as much as our friend "R. M. C.," has studied at college to become a landscape and ornamental gardener? Why is it, I ask, that some gentlemen in Scotland and England employ six, eight, and in some cases, eighteen or twenty foresters, from one end of the year to the other, taking care of their forest and ornamental trees and shrubs? Surely, it cannot be to lay a ruthless hand on the trees entrusted to their care. No man worthy of the name, will cut a limb unless needed, any more than he would scrape the fair skin of his child, or the surface of an alabaster statue. In the choice of ornamental trees, the writer holds up the American Elm as

the most perfect of all deciduous trees. The American Elm is worthy of a place in every collection, but where will you put the English Elm, and the Rock Maple? Go to Vermont and see that noble tree in its state of nature, and you will see something far before the American Elm; and where in the list would you place the favorite Lime or Linden (English?) Take a walk, if you please, to the west part of your city, and where will you find elms to be compared with the trees of this class, planted six or eight years ago, in Charles Street? For rapid growth and beautiful foliage, there are few trees to be compared with the European Linden.

One remark on scraping or cleaning, and I draw to a close. When the elms or any other trees are removed from the country to the city, they do not enjoy such vigor as they do in the country; this can be helped by washing with soap suds, which will keep the bark clean and free from insects.

A GARDENER.

Lynn, May 16, 1854.

For the New England Farmer.

WINTER WHEAT.

MESSES. EDITORS:—As a Massachusetts man, and feeling a deep interest in all that pertains to her welfare, permit me to call the special attention of farmers to the letter of H. J. T., of Lunenburg, published in the *Ploughman*, May 6th, in relation to a crop of wheat raised in that town by Mr. Micah Marshall. He says, "the farmers of this town are determined to raise their own wheat—there were sown more acres of winter wheat last fall, than have been for the last twenty years."

Is not this example worthy the emulation of every town in your State? I look for this glorious millennium, among your farmers. I have urgently advocated wheat-growing for the past seven years. I have said, in the public prints, that I raised 25 bushels of winter wheat to the acre, averaged for six consecutive years, but I was accused by the publisher of having the "fattest kind of land." What else should the farmer cultivate but "fat-land?" Why should he go over four acres of ground to get 100 bushels of corn, if the same manure will give it on one acre? Labor is the cost, figures show it, as nearly three to one.

Your State is exalted above any other in scientific Horticulture? Among your people, it is little short of a mania. But, how commendable, how profitable. See that pear tree, loaded in graceful festoons, sixteen for a dollar!—running a stream of silver into your pockets, and setting your tongue afloat with an involuntary tide at a sight so charming. And thus, may we expatiate on the whole fruit calendar; but bread is the main stay of the farmer, and while he would bestow so much anxious care for a tree, and to produce every crop, he neglects this main stay—cherishing the long established impression, that there is no lime in the soil, and consequently there can be no wheat raised.

The Lunenburg farmer says, 136 years' improvement had not exhausted the lime. Here lies the fact, that every shovel-full of barn-yard manure possesses in itself, and restores to the soil, a certain amount of lime—so that land, well manured, is well limed.

Now, in what part of this "great country" does not wheat grow? South, West, North and East, even to the Bay of Fundy. Why should New England be exempt? Is her geographical position wrong? Common sense gives the emphatic answer—no. It is as easy to raise wheat in New England, as it is to manufacture New England rum from molasses, and a much safer and more profitable crop for the people—(correct me, if I am wrong.) Then, farmers of New England, "Lords of the soil," wake up—make the trial, and my humble word for it, the day you will never rue.

Respectfully,

H. P.

P. S. Spring wheat makes dark, heavy flour, and is liable to rust, but the farmer is bound to try it this year. Winter wheat must be sown early in Sept., and in moist, heavy lands, planted deep that the roots may not be thrown out by frost, or should the blade be broken off, the roots will revive it again. At the West, wheat is plowed in.

H. P.

REMARKS.—The above very interesting, and very useful letter, is from one of the sons of our beloved State, who has allowed the "cares of the world" to tempt him into the great "city of Gotham," but whose thoughts still come back to his first love. Like a true pilgrim, he cannot forget the pleasant homestead where he first knew the world, nor the interests of those with whom he began life's journey. He has frequently, and earnestly, urged upon the farmers of his native State the importance of cultivating winter wheat; we have seconded his efforts as we have had opportunity, and certainly have "practised what we preached," for we have now between two and three acres of the winter blue stem growing, and as handsome as ever stood upon the ground. There is no difficulty, in our opinion, in producing as fine wheat in New England as on the Short Hills in Virginia, or the best lands in Western New York. We hope to see a liberal breadth of land made ready for this crop for sowing early in September.

For the New England Farmer.

THE CURCULIO.

MR. BROWN:—I have young plum trees that have borne a little fruit annually, most of which the curculio has destroyed. Last year they came into full bearing, and being loth to lose the crop, as soon as the destroyer came, I took soap suds that had stood in the sun some days, and had become quite putrid, with which I wet the fruit and foliage effectually, and then dusted it over with dry slaked lime. I had no doubt of its efficacy, but expected to apply it two or three times; it succeeded, however, beyond my most sanguine expectations. I applied it but once, and I think there was not a single plum touched on the trees by the insect. On one tree near by, that was not thus treated, I could not find a plum that had not two marks of the insect, and on one I counted thirteen.

JOSEPH HADLEY.

Hydepark, Lamoile Co., Vt., May, 1854.

*For the New England Farmer.***ELLEN JONES.****A STORY FOR GIRLS.**

One fine December night, the air was clear and cold, and three children were pressing their faces against the window, eager to catch the first sound of bells—sleigh bells.

"I see them," said Eddy, the youngest of the three, who was allowed the favor of standing in a high chair, and thus looking out through the upper squares of glass; "I can see something."

"Let me stand in your chair a moment, Bub," said Lizzie. "Yes, I believe it is father and Ellen," said she.

"I know it is," said Mary, "for I hear the bells; it's our bells."

Even the mother's eye beamed with unwonted pleasure as her youngest darling exclaimed, "here they are, father and Ellen! O, Ellen, she looks like a queen—with a feather in her bonnet; how beautiful!"

A general rush was made for the door as Mr. Jones tenderly, and perhaps a little proudly, handed his eldest daughter from the sleigh.

How the younger children crowd around, eager to observe every look and catch her tones, as she receives her mother's warm grasp, and returns her proffered kiss. To them, sister Ellen was quite an important personage; aside from her being the eldest daughter, she had been six months in a Seminary. Having been in a city, was, to the brother and sisters, in itself a great event. That much was expected of Ellen, they were fully aware; many little arrangements, and alterations in household matters, had they joined with their mother in making, solely in reference to Ellen's return.

Farmer Jones felt a glow of honest pride as he gazed on Ellen's fine face with a look of love. Certainly sister had improved in personal appearance—so thought the children, as after tea they all gathered around the open fire-place, and turned their eyes to mother's right hand, where sat Ellen in the little rocking-chair.

Mr. Jones, instead of reading his weekly paper as usual, damp from the press, dries it carefully before the blaze, and lays it upon the table; to tell the truth he knew he shouldn't understand or remember a word if he read, for his mind was now with his children, particularly with the one who had just entered the home of her happy childhood.

The children ask Ellen a few questions, which she answers, not quite as readily as they had supposed she would, and mother tells them, "that as Ellen is tired, and almost enough of a stranger to be called company, she thought they ought to entertain her."

"Come, Eddy," said she, "can't you tell Ellen something that has taken place since she left us? I think you can say something that will please and interest sister; just think, she has been away from us since June."

Of course, little Eddy supposed his sister would be as much interested as himself, and commenced with, "O, Ellen! we've had such nice times, only we wished you had been here," and then the girls joined with Eddy and recounted the many joyous, free, and merry times that good children who live in the country know all about. How in

summer they ranged over the green fields, or played beneath the shade of the tall pines in the deep wood, and in the winter, when the air was clear and bracing, and the long hills covered with the icy snow, how the boys drew their sleds up their smooth sides, and with the girls glided swiftly down and far over the interval below. O, those were merry times; even farmer Jones' eye lighted up with pleasure at the recital.

"It's fine coasting now, is it, my son?" said Mr. Jones. "Ellen will be a fresh customer for you to-morrow; 'twill take a day or two to rub off the city polish, wont it though?" turning to Ellen and patting her under the chin.

"I don't know, father," said Lizzie, "the city girls that I've seen are as big rumps when they are out here, as any of us. There's cousin Kate and Jane, when they were here last summer, they could beat us all; yes, and how everybody loved them; nobody was afraid of them, for all their father was so rich."

"What made everybody love them?" said Mrs. Jones, who had looked a little sad for a few minutes.

"Because they were so kind-hearted," said Lizzie.

"Because they were so real polite," said Mary.

"It was because they weren't a mite proud," said Eddy, "and every time I see old lame Isaac, he asks me something about them, and says, 'real ladies them was.'"

Somehow the evening wore away pleasantly enough, but without Ellen's seeming quite so free and glad, so happy and satisfied, as was Ellen of a year ago. The children easily accounted for this if they noticed it, by supposing it was a very sad thing to part with teachers and school-mates. They retired and left Mr. and Mrs. Jones arranging matters for the morrow as they sat by the bed of bright coals.

"Wife," said Mr. Jones, "they give me a very good account of Ellen at B. Mrs. W. says she is a fine scholar,—ambitious,—and a good share of self-respect. They all advised me to have her return in the spring. But the question is, can we afford it? We've had to make an extra effort to do what we have for her; but there, if I was sure she would repay us, I shouldn't mind that or more."

"We can tell better how to act in this matter when spring comes,—we will try and make Ellen happy at home till then," said Mrs. Jones.

"Heigho! well, I've a notion it takes more to make girls happy that have been to these city schools," said Mr. Jones.

The next morning found the family seated around the breakfast table before it was dawn; Mr. Jones being a hard-working, industrious man, found the old maxim, "Early to bed" &c., for his special interest. They knew it would require some effort for Ellen to rise an hour earlier than had been her custom; so as she did not appear, they said it was "no matter; bye-and-by she would get up as early as any of them." Ellen made her appearance soon after the family left the table.

Just now Mr. Jones entered and said to the children, that George and Sarah S., children of their nearest neighbors, were coming with their sleds, and if their mother could spare them for an

hour, they might go to the top of the hill and slide. "Where's Ellen?" said Mr. Jones, "call her; there'll be no better coasting this season, and of course, George S. knows of no one that he will be more pleased to see on his sled."

"Ellen is up stairs," said Mrs. Jones, "but I hardly think she will go."

"Go! why yes she will go, or else she is not Ellen Jones. Call her, mother, and we'll see."

As Ellen entered, it was evident to Mr. and Mrs. Jones that something was the matter, for there were traces of tears, and her countenance was by no means a happy one.

"Ellen," said Mr. J., "George and Sarah S. are coming with their sleds—the children have gone to meet them; would you like to go out and slide down hill with them a few times? You can spare her, can't you, mother?"

"I would rather not go," said Ellen, without raising her eyes from the floor.

Mrs. Jones now silently motioned to her husband to say nothing further to Ellen. She was left alone with her daughter, who looking out of the window asked her mother, "if things always looked alike to her?"

Mrs. Jones smiled, and saying that was a queer question, replied that the same things did appear differently at different times, for the reason that we view the same objects with such various feelings. "I expect you enjoyed yourself very much while you were away, this winter and summer; you were happy, were you, my daughter?"

"Yes mother, happier than I shall ever be again, if I've got to stay at home," replied she, at the same time bursting into tears.

"Why, my child, do tell me why you feel so, why this change? I must know Ellen; your happiness is very dear to me. Do not let us see you unhappy, if it is in our power to make you feel otherwise."

"Well, mother, perhaps 'twould have been better to have let me stay at home."

"Why, my child?"

"Because, there is everything beautiful in the city, and of course I must, I could not help being happy there. Uncle's house is so different, so much pleasanter, so much more elegant than this. O, this looks like a prison beside it; their kitchen looks prettier to me than our parlor. And then aunt never works as you do; it is far pleasanter to have servants. O, I wish I had never gone from home, and then I shouldn't have known but it was well enough here;" and Ellen drew a long sigh.

"Well, my dear, if you don't wish it, we will not again send you; you will forgive your father and mother for placing you in circumstances which caused you to be so unhappy. Surely we made a great mistake, and O, Ellen, you don't know how great an effort we made, to give you these advantages."

"I don't want you to talk so, mother."

"But my dear, you are taking a wrong and mistaken view of everything, and O, Ellen, how little you know of the world; if I had time, I would tell you how, for months before you left us, your father and I exerted ourselves to give you an opportunity to acquire knowledge, and to make you happy. Let me beg of you, Ellen, not to speak to your father, as you have to me; it does seem to me that you can overcome these feelings at once, if

you choose—at any rate you will shortly, if you will make an effort, and cherish kind and gentle feelings. Will you try?"

"Yes, mother, but it's no use; I can't make believe contented."

The children returned and gave Ellen an account of their hour's enjoyment. "Such a good time," exclaimed Eddy, "you never had down to uncle's, I know; George was real sorry not to see you, Ellen."

In the evening the family were seated around the open fire-place whose cheerful blaze made shadows on the wall, and threw its light over the whole.

"Now for some popped corn, Eddy, and some apples," said Mr. Jones.

"Yes, father, I've got it all shelled ready." See our new corn-popper, Ellen," said Eddy.

Ellen said nothing, but looked as though it were a little beneath her dignity to notice such childish things. After a few moments' shaking—pop, pop, snap,—and it was quickly turned upside down, and emptied of its snow-white kernels. Soon the large dish was filled, and the red-cheeked apples were beside it. Ellen was now quite cheerful, more so than she had been since her return, and the evening passed pleasantly. Sweetly sounded her fine voice as with her mother she joined in singing

"There is a land of pure delight,"

and when she knelt with the others, and her father prayed that they might be "that happy family whose God is the Lord," how did her mother's heart fill with grateful emotions to the Giver of every blessing.

Ellen took a candle from the mantel, and lighting it, pleasantly bade her father and mother "good night;" as she closed the door, her mother heard her exclaim.

"What is it, Ellen," said she; "did you not speak to me?"

"No, but it is shockingly disagreeable to have these tallow candles; it's too bad, tallow dropping upon my dress; so different from uncle's gas lights—well, I must bear it, no use to say a word—though I despise these things."

Mrs. Jones closed the door and made no reply.

"Wife, what ails Ellen?" said Mr. Jones, as she reentered herself. "What has got into her? I think it's pretty well, if we've got to make an effort to raise money to send the children away to school, only to come back and despise home. It seems to me she has made up her mind to be unhappy. What course shall we take with her? It is having its effect upon the younger ones—they look up to Ellen. Do you think Eddy didn't say to me out in the barn to-day, 'that the reason his feet were so cold was, because we had no carpets on the floor;' I asked him how he knew, and he said 'Ellen said so.'"

"I'm very sorry," said Mrs. Jones, "but Ellen is not really unamiable—once let us touch her better feelings, and certain I am she has them, and she will shew as kind and as true a heart as any child we have got."

"I know it, but 'twont do to be harsh, we can't scold it out of her; and I'm afraid we can't coax it out very quick."

"Shall you go to the village this week?" asked Mrs. Jones.

"Yes, I shall go day after to-morrow; shall we let Ellen go over and spend the day?"

"That is what I was thinking of," replied Mrs. Jones. "We must be gentle as well as firm, and her good sense will show her better, bye-and-by, I hope."

Pleasantly felt Ellen, if we judge from her beaming countenance, as seated in the sleigh by her father's side, on a fine morning, she bade her mother and sister "good-bye;" pleasant visions of village girls, rich furniture and charming music were fitting through her mind, and a feeling like contempt for her own home, and something like pity for its inmates mingled with these pleasurable feelings. "But they don't know any better," she inwardly felt. "Yes, and didn't you," said a little timid voice speaking from the chamber of her secret thoughts, "didn't you enjoy your childish sports at home, when you didn't know any better? Didn't you have a better time when you played in the oak pasture; yes, and didn't you have a better time in the garret, even, playing blindman's buff, than in uncle J.'s parlors?" Then Ellen was almost obliged to own to herself that 'twas so. Then she thought how full of enjoyment the children were the day before, when it stormed, sitting on grandmamma's settle, and calling it uncle's velvet lounge.

"Well, it's because they don't know any better, and I *do* know better. I won't stoop or bend to their homely notions again;" and Ellen tossed her head with quite an air for a young Miss, in confirmation of this thought, as her father reined his horse to the door of a shabby looking cottage, in one of the back streets of the village they had just entered.

"Now, Ellen," said her father, "I want you to get out here, and stop a spell; I am going to the mill to get this bag of corn ground, and may be you would rather not have any of your young friends know that you rode with a bag of corn."

Ellen blushed, for she didn't suppose till that moment, that her father understood her motive, when she expressed a wish to walk part of the distance. "If I shouldn't call for you very soon, Ellen, don't be worried, for you will find an old friend here; try and enjoy yourself, and be sure and stay till I call for you; there, give these things to Mary," said he, handing her some bundles; "don't knock, walk right in."

"Mary, Mary," thought she, hesitating a moment on the door-step, "it must be Mary Teel, who lived with us when mother was sick;" and then she heard a lullaby noise, and the faint wail of an infant, and softly she opened the door of a dark entry. Closing this, she felt her way to the opposite door, and entered a little room. She was for a moment, unable to distinguish objects, but a kind, though unfamiliar voice greeted her, and placing a broken chair by the stove, invited her to be seated. Ellen now looked around the dark room; dark, not because there was no pleasant sunlight without, but because there was but one little window of four squares for it to gain admittance to this attic room.

In one corner was a low cot bed, upon which lay Mary Teel. Little had Ellen seen of sickness,—yet one glance told her that Mary was very ill. Then as her eye wandered from the bed to the mean and wretched appearance of everything in the room, she for a moment had a feeling of dis-

gust, and felt unkindly towards her father for leaving her there. It was but for a moment, however, for Ellen, as we said before, had a kind heart, and when she saw Mary's baby lifted from its little broken cradle, and placed in the bed by its mother, and heard the woman who attended her describe her intense sufferings, with that distressing sickness, the rheumatic fever, her heart melted.

No visions of her uncle's splendid parlors now rose before her, but she was thinking how Mary, pretty Mary Teel, two years ago, watched by the sick bed of her mother, with a heart as free from sorrow and care as was then her own. Then as Mary, awaking from the fitful slumber into which she had fallen, placed her bright eyes on Ellen, the color on her cheek heightened, and she reached out her thin hand to grasp Ellen's, which was quickly placed in her's—feeble was the grasp, yet it thrilled through her inmost soul.

"'Tis kind in you, so kind, to come to see me, 'a friend in need is a friend indeed!' Such a sweet thought I had while I was sleeping; I thought your dear mother stood by my bed side, and with her sweet voice she sung

"Pain and death and night and anguish,
Enter not the realms above."

and now you will sing it to me—O, I wish you knew some more, my head is so weak, I can't think much."

Ellen placed her hand over her eyes, now swimming in tears, and thought for a moment; "I believe I know some of it," said she; then bending low she repeated,

"Endless pleasure, pain exclaiming,
Sickness there no more can come,
There no fear of woe intruding,
Sheds o'er Heaven a moment's gloom."

Mary listened with clasped hands and closed eyes, and then softly added

"Lay thy supporting, gentle hand,
Beneath my sinking head."

Then in a gentle whisper she asked Ellen if she could sing it like her mother. She did so with a low, sweet voice, and Mary remained silent for a few minutes after looking earnestly at her; then motioning for her to lean over the bedside, she whispered in her ear, "Are you happy, dear? O yes, you must be; I am, I have everything to make me happy." Ah! those words sunk deep in a kind but sensitive nature.

Where were Ellen's fancied sorrows? Scattered to the winds.

Mary now slept, and Ellen for the first time thought of the articles her father gave her for Mary. She untied the bundles, and first were a dozen candles—"tallow candles." "O, kind in ye dear, to bring them," said the woman, "we've got along nicely though; we've burnt rags in a little dipper of grease, but it's not so neat, you know. You must be used to sickness, dear," she said as Ellen handed up the other articles, "to know how we needed just these things."

"My mother is," was the reply. "Well, dear, surely you was kind as could be, to come here— young folks like you aint always so thoughtful like, but you'll have your reward. She," pointing to the bed, "she is a saint, and oceans of sorrow she's waded through. When her husband died and left her in sore want she never mur-

mured a word, nor in all her sickness, nor no time, has a sharp word fell."

How changed were Ellen Jones feelings, as ere she placed her head on her pillow that night she prayed "deliver us from evil." Then did she feel that no evil indeed had ever fallen upon her. And in after years, when she had become a useful and a happy woman, did she often recur to that visit, believing that God taught her there, that "to make others happy, is one of the truest objects of life."

M. F. D.

Brentwood.

THE POOR MAN'S MAY.

We have had repeated occasion to extract some beautiful passages from poets who are now moving in the humblest walks of life. Of these, John and Mary Saunders are worthy of especial note, for the extreme sweetness and simplicity of their productions. They do not aim at lofty subjects, but are content with those that come peculiarly within their own observation. Hence their poems are natural, and because natural, they are pleasing.

Sweet May! they tell me thou art come:

Thou art not come to me;

I cannot spare a single hour,

Sweet May! to welcome thee.

God knows how hard I've worked this week,

To earn my children bread;

And see, we have an empty board,—

My children are unfed.

And art thou still the same sweet May

My childhood loved so well,

When humming like a happy bee,

Along some primrose dell,

I thought, O! what a lovely world

Is this, dear God has given,

And wondered any one should seek

For any other heaven?

The hawthorn buds are come again,

And apple blossoms too;

And all the idle, happy birds

May sing the long day through.

The old green lane awakes once more,

And looks, perhaps, for me;

Alas! green lane, my heart may die—

I cannot come to thee.

SINGULAR CASE OF INSTINCT IN A HORSE.

We do not remember ever to have heard of a more remarkable exhibition of equine intelligence than was communicated to us a few days since by Mr. Allen, of this place. The circumstances as they were narrated to us are as follows:—

Mr. A. had for a considerable time a span of sprightly little horses, that he had never separated. In the stable, in the field, and the harness, they have always been together. This has caused a strong attachment to grow up between them. A few days ago, he went with them out to Lake Minnetooka, on a fishing excursion. Taking them out of the carriage, he led them to the lake and tied them several rods apart on a strip of grass that grew upon the shore, and left them to feed. Returning to the shantee, he threw himself upon the floor, to await the return of the party who had repaired to the lake to fish.

Not much time had elapsed before the sound of approaching horse's feet attracted his attention, and a moment after, one of his horses appeared at the door. The animal put his head in, and giving one neigh, returned at a slow gallop, yet under

evident excitement, to the spot where but a few moments before, he and his companion had been seemingly safely fastened. Surprised to find his horse loose, and struck with his singular conduct, Mr. A. immediately followed, and found the other lying in the water, entangled in the rope, and struggling to keep his head from being submerged. While Mr. A. proceeded to disengage the unfortunate horse, his noble benefactor stood by, manifesting the utmost solicitude and sympathy, and when his mate was extricated from his situation, and again upon his feet upon terra firma, the generous creature exhibited the most unquestionable signs of satisfaction and joy. That this intelligent animal should have noticed the unfortunate situation of his mate—that he should know where to apply for rescue, and in his efforts should sunder a three-fourths of an inch rope, and finally that he should exhibit so high an appreciation of the event, are curious circumstances to us, and commend themselves to the thoughtful consideration of those who would limit the power of reasoning to the "genus homo."—*St. Anthony's Ex.*

DEMOCRACY OF SCIENCE.

BY JOSIAH HOLBROOK.

Consolidation and diffusion are two operations distinct and opposite. Both are witnessed in wealth, government, religion, knowledge, and nearly every thing human. However applied, the one is despotic and the other democratic. The nature of man and the progress of society tend to consolidation at the expense of diffusion. The spirit of republicanism is to promote diffusion and put checks upon consolidation; and that, too, as connected with all the leading interests of human beings.

Democracy of science is the subject now under view. The true democracy of science is "TO INCREASE AND DIFFUSE KNOWLEDGE AMONG MEN"—the design of *Smithson*. This is also not only a great, but the great object of national and State policy—not to consolidate but diffuse knowledge; and knowledge interesting to all, especially farmers and mechanics, as they constitute more than seven-eighths of all civilized communities.

The development and the application of the natural resources of our country stand first and foremost in furnishing that kind of knowledge interesting to all. It shows possessions and the modes of using them—strictly the "USE OF TALENTS." But with development and application there may be diffusion; there may also be consolidation. It is one thing to have our mineral resources developed, and a knowledge of them so diffused that every farmer may know the character and capabilities of his own fields. It is quite another thing to have our country subjected to scientific explorations, however full and complete, and the results placed in ponderous volumes, and those volumes confined to the shelves of college and State libraries, to be little read and less understood. The one is diffusion, the other consolidation. The one is carrying out the purpose of scientific explorations, and applying the knowledge obtained by them for the benefit of those who need it, and those who paid for it; the other is evidently a perversion of funds designed for diffusive knowledge, wealth, morals, and power, to personal pride and individ-

unalaggrandisement. The one tends to democracy, the other to despotism.

As the spirit of the age is the democracy of science—the diffusion, not the consolidation of knowledge—an attempt will be made to point out several subjects of science, with such plans and modes of promoting them as will tend to bring knowledge to every man's door, and to give to it free access by every farmer's son and every mechanic's daughter. As the schools of our country constitute or ought to constitute not a "national university," but a "UNIVERSITY OF THE NATION," special endeavors will be made to present such subjects, plans, and modes as will aid in training the young beings composing them for success in their future vocations; to put them on the track of "PRACTICAL SCIENCE, PRODUCTIVE INDUSTRY, AND CHRISTIAN MORALS."

EXTRACTS AND REPLIES.

POISON FOR RATS.

Can you inform me through your paper what is the best poison for rats where hens are kept?

Boston, May 25, 1854.

A. S.

REMARKS.—Sprinkle about a little flour or meal for a day or two, and after that add a small quantity of strychnine.

LIGHTNING RODS.

Will the Editor give through the *Farmer* the necessary information in regard to lightning rods. Are they a *safe and certain protection* from the fluid? Of what materials and how should they be constructed? Are buildings or persons injured ever, or life destroyed when they are properly put up? By answering these inquiries and adding such information as you may wish in regard to the whole subject, I doubt not you will oblige many of your readers. Yours truly,

Essex, Vt., May 20, 1824. S. G. BUTLER.

REMARKS.—The subject is an important one, but in a season like this, when much of the usual spring work is crowded into the space of a few days, we cannot give that attention to a matter like that which is the subject of inquiry above, which it merits. Nor shall we ever be able to say that no person has ever been injured where rods are properly put up. Last summer we noticed some eight or ten accounts in the papers, of destruction of both life and property by lightning, and in every case there were rods attached to the buildings struck. Unless properly put up we believe there is more danger than to be entirely without them. Perhaps some of our correspondents, blessed with leisure and good will, may make themselves useful in a consideration of this subject.

Our friend will please bear in mind that farming is our business, and that we believe fully in the "old saw,"

"Not with his hands, but with his sight,
The master keeps his workmen right."

CULTIVATION OF STRAWBERRIES.

I wish to inquire the method of cultivating English strawberries! What time in the year

should they be set out, how set, and what land will they do best on? DAVID E. BROWN.

Franklin, N. H., 1854.

REMARKS.—The best season for setting strawberry plants is in the spring—in May. Set one row, then 15 inches off another, and 15 inches more another row; then leave a path 30 inches wide. After they have been cultivated a few years, the plants may be transferred to the 30 inch path, and the bed renewed. For field culture, plant the rows three feet apart so as to cultivate with a horse.

LIME—TURNIPS—THE SEASON.

How shall I apply oyster shell lime to the soil to the best advantage? My soil is a heavy, moist loam, with a *hard pan* bottom, some two or three feet from the surface. (a.)

Will turnips, either English, or ruta-bagas, do well for winter food for stock, sown at this season of the year, or any time in May? Will they not grow large, corky and nearly worthless, sown at this season on good land? I have a piece of new hill burnt land, cleared last fall and sowed to rye and seeded, but the rye has nearly all winter-killed. The soil is good, but the most of it is too rocky and stumpy to plow; will carrots do anything on such land without the use of the plow? I have queried a good deal in my own mind what kind of a crop to sow (or plant even) to get the best return for my labor, and the more I queried, the farther I was from coming to any conclusion as to what was the best method for me to pursue, and in my dilemma I ask for advice. (b.)

The season is very backward in this region as it must be throughout the country. Ground froze hard last night, and water nearly three-fourths of an inch thick, making the cattle which have been turned out look rather sorry. We hope we have had our last freeze for this spring, and that vegetation will soon make rapid strides.

Mr. Charles C. Stevens, of this town, gave me a Malay hen's egg, which measured 2 inches in diameter, 3 inches long—6½ inches in circumference one way, and 3 inches the other way. Is that often beat? JAMES A. BLAKE.

Warwick, Mass., 1854.

REMARKS.—(a.) Sow a part of the lime broadcast and a part in drills or the hills and note the effect. The slightest covering will be sufficient.

(b.) Your burnt hill land will be excellent for turnips; the common flat turnip will probably succeed best, as the ruta bagas require a mellow and somewhat deep soil. The middle or last of July will be early enough to sow the seed, and if carefully raked in on such land, you may reasonably expect a most abundant crop.

SIGNS OF HEALTH IN SHEEP are, a skittish brightness, clear azure eye, florid, ruddy eye-strings and gums, teeth fast, breath sweet, nose and eyes dry, respiration free and regular, feet cool, dung substantial, wool fast and unbroken, skin of fine florid red, particularly on the brisket.—*Lawrence on Cattle.*



For the New England Farmer.

FRENCH MERINO BUCK, "OLD TIGER."

OLD TIGER is 5 years old, 185 lbs. weight of carcass, 16 lbs. 11 oz. weight of fleece, and very clean for unwashed wool. The wool is fine and even for that variety. His stock is superior, and sought after by many of our best wool growers. I have repeatedly refused \$500 for him. I purchased Old Tiger, as he is called, August 20th, 1850, of Mr. A. S. BINGHAM, of Cornwall, Vt.; he is known as the *Tainter Stock*. I paid \$200 for him, and I confess that it has been the best investment I ever made, having realized the sum of \$1200 profit from him in three years. My present flock consists of French, Silesian and Spanish Merinos, selected mostly from Mr. CAMPBELL's celebrated flock, who is now breeding each variety distinct, except in a few cases of crosses with each other, which have thus far proved very satisfactory.

Brattleboro', Vt.

Very truly,
A. V. STOCKWELL.

PROSPECTS OF THE SEASON.

The frequent rains and cool weather have given the fields an unusual richness; on old fields grass was considerably winter-killed, and the crop will be rather light, notwithstanding the favorable weather; on fields more recently laid down the prospect for a full crop is favorable. Winter rye, and the few pieces of winter wheat we have seen, look well. Oats and barley also promise well now. Corn has generally come well where it has not been scorched by coming into contact with guano. We have heard of a good many acres to be replanted from this cause. The grain

must not come in contact with the guano, even though the latter is mingled with four or five parts of loam. Nor should the guano be in a mass below the kernels, because when the root strikes down into it, the guano is quite sure to kill it. When guano is applied to the hill it should be scattered over a surface one or two feet square. Potatoes are up well and generally look finely.

There is good promise of a fair fruit crop. Cherries will not be so abundant as last year, but in some sections quite plentiful. The peach crop will be light—the winter was too severe. If we mean to secure an annual crop of this delicious fruit, we must devise some way of protecting the trees. See two articles in last week's paper on this subject. Apples promise well, a sufficient amount of fruit hanging on to give a good supply, where the worms have not destroyed the foliage. The caterpillars came early and were numerous, and in some of the towns near Boston have been succeeded by the canker worm, which has made great havoc among the orchards. In passing through the town of Marlborough last week—said to be the second best farming town in the State—we saw numerous orchards nearly defoliated by caterpillars; the branches were bare of everything but the huge, ugly nests of the caterpillar—a striking contrast to the usual good husbandry of our agricultural friends in that beautiful town. On the whole, the prospects to the farmer are encouraging; prices of all kinds of produce are high, and with diligence and economy, he cannot fail to reap a fair reward for his labor.

For the New England Farmer.

[CORRESPONDENCE No. 2.]

APPLICATION OF LIME AND ASHES FOR THE IMPROVEMENT OF LAND.

Shorcham, Vt., Feb. 27, 1854.

MR. HOLBROOK:—Dear Sir,—Although you are a stranger to me, personally, you are not through the press, and as you frequently give your views on different subjects relating to agriculture, I should be pleased to receive a communication from you on the application of unslacked ashes and slacked lime.

My soil is mostly of a deep, rich, dry loam, some of it heavy, some light, and plaster of paris has had a good effect, and I am told has been applied for 30 years past. My crops have not been as large and good as the cultivation would indicate.

Generally, I have raised winter wheat after corn, and the most I ever raised was 28 bush. per acre—average 14 bush. Since I have been on the farm (15 years) I have not raised a first rate crop of winter or spring wheat; there has been some defect, either it would lodge; be too thin; the fly would injure it; or the rust would strike it and spoil the berry.

Now can I not apply ashes or lime to advantage and have a larger and more equal yield?

Refuse lime can be had for three cents per bushel within three miles, and I think ashes can be bought in town for 6 or 8 cents, as there is no ashery, and most of the farmers prefer to sell them. I have thoughts of applying ashes and lime to grass lands when they are dry, but have no experience, and do not wish to use many without more knowledge than I have on this subject.

I have previously paid more attention to raising grain than grass, but am convinced with the present high price of labor that the profits of the farm would be larger should I reverse it and give the grass crop the preference.

I think since 1839, the average crop of hay has not been over $\frac{1}{2}$ of a ton per acre, and pasture in proportion.

Should you be pleased to answer this communication, it would be received as coming from high authority, and I should govern myself accordingly. An early reply will much oblige

Your humble servant,

DEAR SIR:—Your letter of Feb. 27th, was duly received, and I take the first convenient opportunity to answer it. Omitting your name and residence, I reply to your inquiries through the medium of the *New England Farmer*, hoping that thus I may be anticipating inquiries kindred to yours from other persons and saving some writing, and trusting that under the circumstances you will not seriously object to this mode of communication.

The exhaustion of land by long-continued applications of plaster, without suitable applications of stable manure, has been often illustrated. Plaster stimulates the soil to give up its fertility freely to growing crops, but does not enrich it like organic or stable manures. Perhaps to a greater or less extent this is your case.

Probably your land needs rest from wheat, as generally it is a crop which will not, to an equal degree with several other crops, bear repetition at short intervals on the same land. Throw wheat out of

your rotation for a few years, or at least cultivate a less breadth of it for a while than heretofore, and make the intervals longer between growing it on a given field; as thus your land will be gaining what it has been robbed of by the wheat, while at the same time it will be yielding well in other crops, and ultimately, will give you good crops of wheat again.

As your land is mostly a deep substantial loam, by giving it large doses of lime you might for a time realize a considerable increase in your crops of wheat, and indeed in most other crops; but such application, without corresponding dressings of organic or stable manure, would ultimately exhaust your soil. On this mode of using lime is founded the proverb—"lime enriches the fathers but impoverishes the sons;"—the reason of which is, that its principal or more powerful action upon the soil is chemical and mechanical, rather than as manure in the strict sense: chemical, as an alterative and stimulant, rendering whatever of fertility the soil contains, whether free, or locked up in noxious compounds, readily available to the growing crops; mechanical, in modifying the texture of the soil, such as by opening and loosening stiff loams and clay, making them more permeable to air, heat and moisture, and easier to work. But it is not my province to deal very minutely in theoretical considerations, and I shall therefore reply to you mostly in the practical view. I would commend to your attentive perusal, "Lectures on Agricultural Chemistry," by Prof. Johnston, wherein you will find the whole subject of lime as used in agriculture, as well as many other important matters, very fully, clearly and ably discussed. You would also do well to read "The Field Book of Manures," by Browne.

If you can buy lime and ashes at anything like the prices you name, you had certainly better employ them, in connection with organic substances, in the improvement of your land. Mix the lime or ashes with muck from swamps and bogs, rich turf, the rich soil washed into hollows and ditches, pond mud, &c., making up the compost heap in a similar mode to that indicated in my correspondence with another gentleman, recently published in the *Farmer*, and marked No. 1. But as he proposed using fresh lime, which increases in bulk three or four fold by slaking, and as you design using refuse lime already slaked, you had better mix from three to five bushels with a half-cord of the muck, &c., with or without salt, as you may deem expedient. By applying lime or ashes in compost as above stated, you can use a larger quantity to the acre than would be advisable if they were applied alone, and will realize all the good effects they can naturally produce, without the disadvantage of ultimately exhausting your soil, as the vegetable organic matter of the compost will maintain and increase the staple of the soil. It will be well to spread as much as twenty-five or thirty loads of the compost to the acre,—harrowing it in on the surface rather than plowing it in deep, as the tendency of the lime and ashes is downwards in the soil. If convenient, make up the compost several months before it is wanted for use, as age improves its quality; but a few weeks before will do.

If instead of raising grain so exclusively as you say you have heretofore done, you turn your attention more to the production of grass and the

rearing of stock, you will be in the way of making more manure than formerly to give back to the land,—especially if you cart waste substances, like those above named, to the barn and yards to be mingled with the cattle-droppings,—while at the same time the change will afford more rest to the land, so that it will improve in some qualities now feeble or missing.

If in this latter way you can make manure enough to dress the fields well, then, inasmuch as you can buy lime and ashes at so very low prices, you may probably find it advantageous to use them as alteratives and stimulants, in the form of top-dressings. You doubtless understand that it is not advisable to put lime with stable-manure, as it induces violent fermentation and throws off the ammonia of the manure. But apply the manure to your hoed crops, of corn, potatoes, &c., and then the next year, or whenever you sow the land with grain and grass seeds, apply lime and harrow it in with the seeds. It will tend to sweeten the land, increase the grain crop, bring in the grasses well, and keep out sorrel. During the time the field is in grass, you can profitably top-dress it once with ten to twenty bushels of ashes to the acre.

The quantity of lime which it is politic to spread on an acre of land, depends considerably on the quality of the soil, and the climate in which it is located. Stiff clays, and deep moist loams rich in vegetable substance, will bear a larger dose of lime than dry shallow sands or gravel; and a given variety of soil will bear more lime in a humid than in a dry climate. The farmers in England and Scotland are said to use from one to two bushels of lime on a square rod of ground, or at the rate of 150 to 350 bushels per acre. But this is a very heavy dose even on their stiff soils and in their humid climate, and would probably be of very doubtful utility with us in New England. You had better apply a bushel of lime on from two to six square rods, or from 25 to 80 bushels per acre, as experimental trials shall dictate.

If the stables and yards do not afford all the manure you want for the tillage-fields, you can make up the deficiency by composting lime or ashes with muck, &c.

Other fields, in grass, which you wish to make more productive than they now are, by a cheap process and in the shortest practicable period, may be smoothly turned over in September, dressed with twenty to thirty loads of the compost of lime or ashes with muck, &c., seeded directly with herbage and red-top, and in the spring with clover. This compost will also be good to use on such portions of the pastures as are level enough to plow.

If your plows are of the too common sort which can only skim the surface of the land, cast them aside and procure larger and better ones, and plow each field deeper and deeper at each rotation of crops, till you have made a good active soil nine to twelve inches deep.

Very truly yours,

F. HOLBROOK.

FARMERS, NOTE THIS.—In a cloudy morning, it is a matter of importance to the farmer to know whether it will be sunshiny or showery in the afternoon. If the ants have cleared their hole nicely, and piled the dirt up high, it seldom fails to

bring a clear day to the farmer, though it may be cloudy till ten or eleven o'clock in the forenoon. Spider-webs will be very numerous about the tops of the grass and grain some cloudy mornings, and fifty year's observation has shown the writer of this that these little weather-guessers seldom fail in their predictions of a fair day.—*Ex.*

THE VOICE OF THE GRASS.

This charming little poem we have lately seen in the English papers without a signature, and published as belonging to England. It was written by Mrs. Sarah Roberts, of Portsmouth, N. H., and was originally printed in the *Portsmouth Journal*.—Mary Howitt, in her "Pictorial Calendar of the Seasons," quotes it with high praise. It is worthy of it.

Here I come creeping, creeping everywhere;
By the dusty roadside,
On the sunny hill-side,
Close by the noisy brook,
In every shady nook,
I come creeping, creeping everywhere.

Here I come creeping, smiling everywhere;
All round the open door,
Where sit the aged poor,
Here with the children play,
In the bright and merry May,
I come creeping, creeping everywhere.

Here I come creeping, creeping everywhere;
In the noisy city street,
My pleasant face you'll meet,
Cheering the sick at heart,
Toiling his busy part,
Silently creeping, creeping everywhere.

Here I come creeping, creeping everywhere;
You cannot see me coming,
Nor hear my low sweet humming;
Far in the starry night,
And the glad morning light,
I come quietly creeping everywhere.

Here I come creeping, creeping everywhere;
More welcome than the flowers,
In summer's pleasant hours;
The gentle cow is glad,
And the merry bird not sad
To see me creeping, creeping everywhere.

Here I come creeping, creeping everywhere;
When you're numbered with the dead
In your still and narrow bed,
In the happy spring I'll come,
And deck your silent home,
Creeping, silently creeping everywhere.

Here I come creeping, creeping everywhere;
My humble song of praise,
Most gratefully I raise
To Him at whose command
I beautify the land,
Creeping, silently creeping everywhere.

THE CONNECTICUT VALLEY FARMER.—We intended to have called attention to the May number of this excellent paper before. It is published at Springfield by S. BOWLES & Co., and edited by Professor J. A. NASH. The farmers, and indeed, men of every occupation, will find the *Connecticut Valley Farmer* not only an instructive, but an interesting paper. Prof. NASH gives it much of his own earnest spirit, while his teachings are sound and valuable for all. The people of the Valley not only, but over the broad land, would be benefited by a perusal of its pages.

THE ARMY OF WORMS.

In the summer of 1770 this whole section of country was visited by an extraordinary calamity, such an one as this country never experienced before or since, beyond what I shall here specify. It was an army of worms, which extended from Lancaster, N.H., to Northfield, Mass. They began to appear the latter part of July, 1770, and continued their ravages until September. The inhabitants denominated them the "Northern Army," as they seemed to advance from the north or northwest, and to pass east and south, although I did not learn that they ever passed the high land between the Connecticut and Merrimack rivers. They were altogether innumerable for multitude. Dr. Burton, of Thetford, Vt., told me he had seen whole pastures so covered that he could not put his finger down upon a single spot without placing it upon a worm. He said he had seen more than ten bushels in a heap. They were unlike anything the present generation had ever seen. There was a stripe upon their backs like black velvet; on either side a yellow stripe from end to end; and the rest of the body was brown. They were sometimes seen not larger than a pin: but in their maturity they were as long as a man's finger, and proportionably large in circumference. They appeared to be in great haste, except when they halted to procure food. They filled the houses of the inhabitants and entered their kneading-troughs, as did the frogs of Egypt. They would go up the sides of the house, and cover it in such a compact column that nothing of the boards or shingles could be seen! They did not take hold of the pumpkin vine, peas, potatoes or flax; but wheat and corn disappeared before as by magic. They would climb up the stalks of wheat, cut off the stalks just before the head, and almost as soon as the head had fallen to the ground it was devoured. To prevent this the men would "draw the rope," as they termed it; that, is two men would take a rope, and pulling from each other until it was nearly straightened, they would then pass through their wheat fields, brush off the worms from the stalks, and by perpetual action they retarded the destruction of their wheat; but it was doomed finally to extinction.

There were fields of corn on the meadows in Haverhill and Newbury standing so thick, large and tall, that in some instances it was difficult to see a man standing more than one rod in the field from the outermost row. But in ten days from the first appearing of the "Northern Army," nothing remained of this corn but the bare stalks! Every expedient was resorted to by the inhabitants to protect their fields of corn, but all in vain. They dug trenches around their fields a foot and a half deep, hoping this might prove a defence; but the ditches were soon filled, and the millions that were in their rear went over on the backs of their fellows in the trench, and took possession of the interdicted food.

About the first of September, the worm suddenly disappeared; and where they terminated their earthy career is unknown, for not the carcass of a worm was seen. In just eleven years afterward, in 1781, the same kind of worm made its appearance again, and the fears of the people were much excited; but they were comparatively few in number, and no one of the kind has ever been seen since.

This visitation, which destroyed the principal grains for that year, was felt severely by all the settlements; for it not only cut off their bread-stuffs, but deprived them of the means of making their pork to a great degree, and reduced the quantity of fodder for their cattle. The settlements at Haverhill and Newbury did not feel this calamity quite so much as those infant settlements in the towns north and south of them. They had been longer in their settlements, had some old stock of provisions on hand, and had the means to procure supplies from Charlestown, or by the way of Charlestown. Jonathan Tyler, of Piermont, related to me that that settlements in that town were left without means of subsistence from their own farms. His father drew hay on a hand-sled upon the ice from the great Ox-bow in Newbury to support his cow the following winter. And had it not been for two sources opened for their support, they must have deserted the town. One was the extraordinary crop of pumpkins in Haverhill and Newbury. The corn being cut off and the pumpkins remaining untouched by the Northern Army, they grew astonishingly and seemed to cover the whole ground where the corn had stood, and the yield was great. The people of Haverhill and Newbury gave the settlers of Piermont the privilege of carrying away gratis as many pumpkins as they would. They went up, made a kind of raft, and transported them by water to Piermont. The raft was simply an inclosed space made by four timbers within which the pumpkins floated on the water. It was towed by men in a skiff.

Another source of support was open to them in the immense number of pigeons which Providence sent them immediately on the disappearance of the Northern Army. Nothing could equal their number, unless it was the worms that had preceded them. The Tylers of Piermont, Daniel, David and Jonathan, commenced taking pigeons on the meadow west of Haverhill Corner, and in the space of ten days they had taken more than four hundred dozen! They carried them to Piermont, and made "a bee" for picking pigeons; and two or three times a week the people of Haverhill were invited down to Mr. Tyler's to pick pigeons.—Those who went had the bodies of all they picked, the Tylers having the feathers; and they made, says Jonathan Tyler, "four decent beds of those feathers." The bodies of these pigeons, when dressed, dried and preserved for the winter, were very palatable and nutritious, and proved a good substitute for other meats.—*Power's History of Coos.*

A HORSE'S FOOT.

The foot of a horse is one of the most ingenious and singular pieces of mechanism in the animal structure, and scarcely yielding to any in regularity, and in complexity of parts, and simplicity of design. The hoof contains series of vertical and thin laminae of horn, so numerous as to amount to about 500, and forming a complete lining to it. Into this are fitted as many laminae belonging to the coffin bone; which sets are elastic and adherent. The edge of a quire of paper, inserted leaf by leaf into another, will convey a sufficient idea of this arrangement. Thus the weight of the animal is supported by as many elastic springs as there are laminae in all the feet, amounting to

about four thousand, distributed in the most secure manner, since every spring is acted upon in an oblique direction. Such is the contrivance for the safety of an animal destined to carry greater weights than that of its own body, and to carry those, also, under the hazard of heavy shocks.—*Macculloch.*

HONEY BEES.

The Albany *Cultivator* has an interesting article on honey bees, from the pen of a distinguished professor, from which we quote the following paragraph.

"Many, nearly everybody supposes that the bee culls honey from the nectar of flowers, and simply carries it to his cell in the hive. This is not correct. The nectar he collects from the flower, is a portion of its food or drink; the honey it deposits in its cell is a secretion from its mellific, or honey secreting glands, (analogous to the milk secreting glands of the cow and other animals.) If they were the mere collectors and transporters of honey from the flowers to the honey comb, then we should have the comb frequently filled with molasses, and whenever the bees have fed at a molasses hogshead. The honey bag in the bee performs the same functions as the cow's bag or udder; merely receives the honey from the secreting glands, and retains it until a proper opportunity presents for its being deposited in its appropriate storehouse, the honey comb.

Another error is, that the bee collects pollen from the flowers accidentally while it is in search of honey. Quite the contrary is the fact. When in search of nectar, or honey, as it is improperly called, the bee does not collect pollen. It goes in search of pollen specially, and also for nectar.—When the pollen of the flower is ripe, and fit for the use of the bee, there is no nectar; when there is nectar, there is no pollen fit for use in the flower. It is generally supposed, also, that the bee constructs the wax, from which its comb is made, from such vegetable substances. This is likewise an error. The wax is a secretion from its body, as the honey is; and it makes its appearance in small scales or flakes, under the rings of the belly, and is taken thence by other bees, rendered plastic by mixture of the bee's mouth, and laid on the walls of the cell, with the tongue, very much in the way a plasterer uses his trowel."

A NEW REMEDY FOR THE CURCULIO.

Mr. A. Robinet, of Bedford, Cuyahoga county, Ohio, communicates the following to the Cincinnati Horticultural Society, as the result of an experiment of one season, but needing further trial to confirm its value. We have little faith that it will be found effective, but as it is easily tried, we will give it a place.—*Ohio Cultivator.*

"Last spring I determined to save my plums if possible, and accordingly provided myself with two wooden bows bent by a small cord fastened to each end so as to form a semi-circle of such size that when the two were placed together, a perfect circle was made about 7 or 8 feet in diameter; the intermediate space of each semi-circle was filled with sheeting. These I at regular intervals placed on the ground beneath the trees and shook the trees so as to bring down usually at each shaking

from 10 to 80 curculios, which were destroyed. Finding that my sheeting mildewed when on the ground, I suspended each sheet to a branch on the tree, so as to dry. When returning to shake the trees, I found that not a single curculio could be obtained from a tree on which a sheet had been suspended. I removed the sheets from tree to tree with the same result—no injury was done to the fruit on any tree from which the sheet was suspended.

The coming season I shall suspend one piece or more, (varying according to the size of the tree,) of about one yard, painted white, made fast to two small pieces of wood, suspended from the centre of the top stick to a branch of the tree, and shall suspend these on the west side of each tree. Should the tree be large, I should recommend adding two or more additional sheets."

SALT YOUR STOCK.

Most persons, probably, are aware of the beneficial effect of salt upon the human system. By the ancients, salt was held in high estimation, and every one has doubtless noticed how extremely insipid meat and vegetables are when cooked without it, or with only an insufficient supply. Horses, cattle and sheep, in short all domestic animals, should be regularly supplied with it at all seasons. The liberal use of this mineral improves their condition and promotes their health, and when they have acquired the habit of partaking of it freely, there is no danger to be apprehended from their taking too much.

Salt promotes digestion, and destroys or dislodges worms, which at certain seasons effect a lodgment in the stomach and alimentary canal. We have, most of us, probably witnessed with what avidity wild, and undomesticated animals seek at certain times the creeks and estuaries which indent the shores of the ocean—the "salt lakes," and what long journeys, dangers and difficulties they voluntarily encounter to reach them. This is the result of pure instinct; it is not to be attributed to mere caprice, as some have imagined.

Horses, sheep, neat cattle and swine are all equally eager for this sanatory and invigorating substance, and cannot be maintained in a healthy and thriving condition without it. The former, it has been remarked, when liberally supplied with salt, are seldom afflicted by the "bots," or with that scarcely less to be dreaded disease, the cholera. In salting sheep, especially during the vernal months, when the green, succulent and highly fermentable matter of which they partake has a tendency to create stomachic derangements, we have thought it advisable to have a shed erected, and fitted with a range of boxes, in which a supply of salt can be constantly kept, and to which the animals, at all times, can have free and unrestrained access. A mixture of one part salt to two or three parts of wood ashes, may also be deposited

in some of the boxes. This mixture possesses highly sanitary properties, and should be provided for all animals, particularly when first sent to pasture. They soon acquire a relish for it, and partake of it with great avidity.

Salt is also a valuable article in compost. According to CUTHBERT JOHNSON'S statement, it is now extensively used for this purpose by the farmers of Great Britain, and has been found singularly beneficial, particularly on light soils. The "squash-vine destroyer," he says, is easily prevented from committing its depredations by the application of brine, which is also a preventive of aphides, or plant lice, which so frequently lay waste the turnip and cabbage yards. But it should here be observed, that the direct application of very strong brine will prove fatal to the plants, and that it should be used for this purpose only in a weak state. By pouring it around the roots, it will tend to dislodge worms and other insect depredators.

NEW PLANTS.

Considerable attention, yet much less than the importance of the subject demands, has been lately devoted to the introduction of foreign seeds into this country. We have now within the limits of our government, every variety of soil and climate, and we are dependent upon foreign countries for many articles which, by judicious cultivation, might readily be supplied from our own resources; and many other articles which have long been raised here, are susceptible of a great improvement in their cultivation and preparation for market. Something has been done by the National Institute, something by the local agricultural societies, and something by enterprising and liberal seamen, who have brought home the seeds, and plants, and animals of other countries, and added new products to our own. Some of the staple products of the country originated from seeds which were brought here as an experiment, or by accident; and it is probable, that of all the articles which enter largely into consumption with us, there is comparatively few which might not, with proper care, be raised within some part of our widely extended boundaries.

Indigo and madder are two articles for which very large sums are sent from this country.—Both might be profitably raised here. Indigo was once extensively raised in the Southern States, and the adaptation of our soil and climate to the production of madder has been repeatedly proved. A very interesting, and we believe satisfactory, experiment, has been tried in the raising of tea. Excellent wine has been produced in the Western States, and in some of the Southern, and it is said that we have regions as well adapted to the cultivation of the grape as any in France or Italy. The substitution of light wines for the distilled spirits of home production would prove of no disadvantage to the cause of temperance. We believe it is a well-attested fact, that intoxication is rarely witnessed in wine-growing regions. The cultivation of flax and hemp will receive an impulse from the new process which is exciting so

much attention. New kinds of fruit, and new varieties of those already cultivated here, might be introduced with great advantage.

More attention has been given to the introduction of improved breeds of animals than to seeds and plants. The effect of this is seen in the improvement of nearly every kind of domestic animal—horses, cows, oxen, hogs, sheep; but the introduction of new species of animals has not received so much consideration. A discussion has indeed been raised upon the practicability of introducing the camel for the overland journey to the Pacific, and something has been said of attempting to domesticate the bison. The latter, we have little doubt, would be successful, and very beneficial; the former appears to be rather chimerical. Yet we will not undertake to say that the camel, or even the elephant, might not be employed with advantage in some part of the country. At least, we shall never know till we try.—*Providence Journal.*

For the New England Farmer.

PROTECTION FOR FRUIT TREES IN WINTER.

MESSRS. EDITORS:—In answer to an inquiry in your last week's paper, whether trial had been made by any one in protecting the peach, I am happy to say that I have tried it with complete success. I have peach trees in their fifth year, which have never suffered in the least from the coldest weather. This place is situated one degree north of Portland in the White Mountain region, about 700 feet above tide water. The prevalent idea that extreme cold alone will kill the peach, I believe must be abandoned; or rather, the idea that when the thermometer is 12° below zero it is fatal; I have contended for several years, that it is not so much the extreme cold as the strong winds, pelting sleet and snow, and sudden changes of temperature, that affect the peach. We had the thermometer once last winter at 34°, and at several times from 12° down to that extreme degree of cold, and yet our peach trees that were protected by matting or fir boughs were not injured at all.

My practice is this. Late in the fall, I draw the limbs of the tree together and put round some matting, a single fold will answer, drive a stake down by the side of the tree and fasten the tree to it. One man can protect from one to two hundred trees in a day; care should be taken not to unwrap them too early in spring, so as to expose the fruit buds to the late frosts.

I also protected a locust tree in the same way, simply by lashing a few fir boughs to the northwest side of the tree. It now looks as bright as if it were growing in the latitude of Philadelphia.

I can see no reason why peaches cannot be raised in any part of Maine simply by protecting them in this way. It may not be known to all of your readers that although we live so far to the North, the ground is rarely frozen to any extent, in winter. The early snows prevent this, so that it is only the tops of such trees that need special protection. It is useless to attempt the cultivation of the peach in this State without some kind of protection; they may survive one, two, or even three winters should they be mild, but the fourth may kill them all down.

I can see no reason why the tender varieties of dwarf pears and plums may not be protected in the same way, and thus largely increase our luxuries. A little pains must be taken even with the apple tree to make it flourish. I have known persons object to cultivating the Isabella grape, simply because they were told that the vines must be protected through the winter; such a person ought not to possess many comforts.

N. T. TRUE.

Bethel, Me., May 27, 1854.

REMARKS.—We thank Mr. TRUE, and "BLYTHE-WOOD," for their prompt, interesting and valuable replies to our queries about protecting peach trees. We have often thought of trying the experiment with matting, but never found the convenient opportunity. These letters show strongly the importance of a free interchange of facts and opinions through the columns of an agricultural newspaper.

POST FOR FENCES.

MR. FRANKS:—Where it is necessary, as it generally is, to erect farm fences with posts, it is a matter of some importance to secure such materials as will be most durable. Oak, ash, chestnut, and cedar, are used in different States, and all, perhaps, have a higher degree of value than other kinds of native wood. Yet the natural durability, or power of resisting decomposition, which these woods possess, may be very materially increased by art. The practice of setting post in a reversed position, or with the tops in a direction contrary to that of growth, is highly recommended by some writers, and in many cases where the experiment has been made, its result appears very strongly to favor the theory upon which it is predicated. Still we are in possession of no reliable data which can be regarded as sufficient authority for an unqualified recommendation of the usage, and must await further developments, ere we accord to it the importance which its numerous, and in many instances intelligent advocates, assume for it.

But there can remain no doubt in the mind of any person, tolerably well informed on scientific subjects, that there are many ways in which the durability of wood, when placed beneath the soil, can be increased *economically*. Nature herself teaches us this fact. If, for instance, we desire to secure the durability of a fence post, we know that *charring* the portion exposed to the action of the soil, will enable it to resist decay. Charcoal, we have all of us seen, is almost indestructible when inhumed in wet or moist situations; and hence, if we create a coat of this substance around the sides, and over the lower end of a post, we infer that it will not speedily decay, or rot. Perhaps of all methods of resisting this contingency—always unpleasant, and often expensive to the farmer, charring, is alone the most economical and effectual. Posts that rarely last more than eight or ten years, may thus be made to endure twenty or thirty. This is not mere theoretical assertion; it has been actually and repeatedly demonstrated by experiment, and its truth could be corroborated by the testimony of hundreds. Kyanizing, or the process of first exhausting the air in the pores of wood, and then filling them with some mineral so-

lution, is another method; but this is too expensive for most farmers. The wood so prepared, however, becomes almost as hard and indestructible as iron, resists friction, and is applied to uses where all the strength and impermeability, as well as rigidity of iron, is required. In a long run, it would, no doubt, richly remunerate one for the expense, but at present it can only be made available on works where large capitals are employed. The abundance of acid contained in the sap, is one of the principal causes of rot. Hence the steeping of it in solutions of potash, lime, or in strong ley, tends to promote its durability, as the alkaliescent liquid destroys the acid, and frees the wood from its action.—*German town Telegraph*.

We copy the above for the purpose of endorsing its truths and objecting to such portions of the article as we conceive to be erroneous.

There can be no doubt that the charring of a portion of the posts to be inserted in the ground, materially increases their durability, as the antiseptic property of the charcoal formed must have such an effect. It is also true that reversing the posts relatively to the position of their growth will cause them to last for a greater length of time.

When the lower or butt end of a log is placed in water, the water will rise in the capillary tubes, and thus, by the combined effects of moisture and atmosphere, decay will ensue. When the position, however, of the log is reversed, and the upper end placed downward, the water will not rise, and hence the conditions for decay are not so readily present.

We should, however, differ widely from the writer of that article in his assertion that the introduction of salts, proper for the preservation of wood is too expensive for the use of the farmer; for many salts may be used with great profit, materially increasing the durability of the wood.

The cause of the decay of wood is principally due to the presence of vegetable albumen, and if this be coagulated by the use of such mineral salts as will render it insoluble, the ordinary conditions for decay will be arrested; thus, in a hoghead or tub containing a dilute solution of corrosive sublimate, chloride of zinc, or sulphate of iron, posts may be immersed to the depth intended for insertion in the ground, and the vegetable albumen contained in the capillary tubes of the wood will be coagulated and rendered indestructible, and that too without material cost.

The most effective of these substances is corrosive sublimate, discovered by Mr. John Kyan, of England, the inventor of the Kyanizing process.

Some of the sleepers of the Amboy railroad were Kyanized, and after having been in use for more than twenty years, are still perfectly sound, while those not so treated, have required renewal.

In the Woolwich dockyard, in England, a number of posts were Kyanized more than thirty years ago, and still they are found to be in a perfect state of preservation, while those not so treated have required frequent renewal.

The chief decay of posts occurs at the immediate surface of the ground, where moisture and air more frequently meet and exercise their combined influences. A hole bored in a post immediately above the surface of the ground, and a small por-

tion of corrosive sublimate throw in this hole, and then closed by a tarred plug, tightly driven in, will preserve the post for a long time from decay. This hole should reach from the outside to the centre, and the slow solution of the corrosive sublimate from the slight amount of moisture sustained in the post, and renewed there by natural causes, will disseminate it throughout the portion most likely to decay.

We cannot agree with the writer that the alkalies will preserve wood. It is true that small portions of lime may be used, because it is soon converted into carbonate of lime, by the carbonic acid of the atmosphere, and thus loses its causticity; but soda, potash, and the other alkalies will decompose woody fibre very rapidly, even after becoming carbonates. If the amount used would only be sufficient to neutralize acids in the wood, forming soluble salts with such acids, and then passing away by solution, the effect might not be so deleterious; but the slightest excess of alkali so applied would materially accelerate the decomposition of the work.—*Working Farmer.*

WHAT TIME SHALL WE CUT TIMBER?

Never in winter, but always in summer. It should be cut during the most rapid season of growth, and while that season is drawing towards a close. The same rule should be followed that skilful nurserymen observe in performing the operation of budding—that is, just as the *terminal bud* on each branch begins to form—as soon as it is first evident that the growth of the branch is about to terminate, but is still in active progress. Experienced tree-propagators have found that much earlier than this, the juices of the tree are in too thin or liquid a state to form a good adhesion between the bud and the peeled surface.—From the moment that the bark separates freely from the wood, these juices continue to thicken, until growth ceases altogether and the new wood is completely formed; and when this new wood is in the state of a thick paste or cement, then is the time that the bud will adhere most perfectly. This is the period when the bark may be peeled from a tree without destroying its vitality. And this is the time for cutting timber. Early in spring, the tree is full of sap, which is little else than pure water, and which has been gradually accumulating through winter by the absorption of the roots, with no outlet for its escape, as there is in summer through myriads of leaves. While the tree is thus replete with water, it is in the worst condition to be cut. But towards mid-summer, when a portion of this water has passed off through the leaves, and the rest has been much thickened by conversion into material for wood, the case is very different; for while the watery sap promotes only decay, the thickened juices soon dry and harden, and assist in the preservation of the wood.

We have recently been furnished with a number of facts, in corroboration of this opinion, by Isaac Hathaway, of Farmington, Ontario county, N. Y., an old and enterprising settler, a close and extensive observer, and who has had much experience in connexion with saw-mills and timber erections. All his observations tend to show the great difference between winter and summer cut timber, and induce him to think that, cut at the

best period, it will last under the average of circumstances three times as long as when felled in winter. In one instance, a fence, consisting of winter-cut materials, a part split into rails, and a portion in round poles, of beech, maple, iron-wood, bass-wood, &c., had completely decayed in fifteen years, and none of it was even fit for fire-wood. In another case, a quantity of bass-wood rails were cut in summer, and split from the brown or heart portion of the tree. This was done about fifty years ago; thirty years afterwards the fence was quite sound, and even now some of the same rails remain undecayed, although much worn away by the weather. Winter saw-logs, left over one summer at the mill, are usually much decayed for several inches towards the interior; summer-cut logs, which have lain a like period, are always sound. He has cut hickory for axe-helves; if done in winter, decay soon commences, and the worm which loves this wood, often wholly destroys its value. Summer-cut, he has never known it to be attacked by the insect, and indeed it seems too hard for them to penetrate. He had occasion to examine several old frames of buildings, and in every instance where the period of cutting could be determined, the same striking difference in durability was conspicuous.

He related several experiments on the durability of posts, one of which is worthy of repetition.—In a gravelly soil, where the water never remains, a stone bottom a few inches thick was laid in the post-hole, on which the post was set, and was then surrounded with stone closely rammed in on every side. As a consequence, the water never remains long enough in contact with the post to soak its interior, as would be the case if damp earth passed its outer surface. Such posts consequently give promise of remaining sound, after some years' trial, at least twice the period of those simply packed in earth. He also finds that posts of what is termed the white cedar in western New-York, (the American *abor-vitæ*) last much longer when set green with the bark on, than if sawed and seasoned, which he attributes to the protection afforded by the durable bark, against the vicissitudes of rain and drouth, and the air and weather generally.*

Now that the season is approaching, best adapted for timber-cutting, as indicated in the preceding remarks, we hope those interested will at least satisfy themselves on the subject by a fair and careful trial.—*Country Gentleman.*

* In ordinary instances, however, above ground, the bark by preventing seasoning, only accelerates decay.

QUACK MEDICINES.

We unhesitatingly condemn as injurious, nine hundred and ninety-nine thousandths of all the patent medicines, mixtures and salves, and washes which are in use. In this country alone, more than one hundred millions of dollars! are every year paid for those nostrums, which are far worse than useless. While some of them may remove or modify one disease, they are sowing the fruitful seeds of a score of others.

A plain moderate diet of mixed food, with proper exercise, is the best safeguard against the attacks of disease. Abstinence is generally the best medicine. When the system has become dis-

arranged, give it time to right itself, not load its weakened vessels with new work in digesting and disposing of new materials which furnish the elements of irritating substances, requiring medicines to remove them from the system.—*Am. Agriculturist*.

EXTRACTS AND REPLIES.

MR. EDITOR:—Permit me to inquire through the medium of your paper the best mode of preventing the maggot from eating onions! I have been very much troubled with them for two years past; cannot some of your subscribers inform us what will stop them? R. HARRIMAN.

Henniker, May 30, 1854.

REMARKS.—“J. M. T.,” in the *Maine Farmer*, says the egg of the onion maggot is deposited in the skin of the seed, and that by soaking the seed in water, a little warmer than blood warm, the egg will be destroyed and the crop saved. He also recommends soaking the seed in weak copperas or saltpetre water.

DANIEL LIGHTON, in the *Monthly Farmer* for 1852, says that sprinkling the young onions with tobacco water will destroy the egg, which is deposited on the top, snug to the growing onion. “H. S.,” of Sagamore Farm, Rye, N. H., says he tried the tobacco water after the maggot had destroyed a portion of the crop, and completely arrested their progress.

WHERE SHALL I FARM IT!

MR. EDITOR:—There was an inquiry made through your columns a few weeks ago, where a man could lay out a small amount of money in a farm in Massachusetts at the best advantage, say from \$1000 to \$2500? Please answer, and you will oblige many that are now thinking of going to farming. B. S. S.

Lawrence, May 29, 1854.

REMARKS.—We are glad to hear that many are looking for farms, and it would be pleasant for us to be able to direct each and all to that El Dorado of human aspirations—a good farm. But we are, unfortunately, not able to answer the question propounded. Things are nearly equal, whether one is located near a city and a good market or remote from them; if near, the first cost of the farm more, and taxes and living every way is more expensive, than if a little remote. You must inquire, and take a stroll yourself through such towns as seem to offer the best advantages.

CRIBBING.

MR. EDITOR:—I would inquire through your invaluable paper whether cribbing (so called from their gnawing the crib) in horses is considered a disease, and if so, is there any remedy that can be depended upon as a cure? W. BUGBE.

East Barnard, Vt., May 29, 1854.

REMARKS.—We concur with the opinion below, from Dr. DAND'S *Modern Horse Doctor*:

The act of cribbing consists in grasping the crib, on a given point, with one or both jaws, at the same time uttering a laryngeal sound, resembling a grunt. A cribbing horse has generally been considered unsound, but we know not on what grounds; for we look upon a horse as sound so long as he can perform the duties of an ordinary horse without inconvenience or lameness; he may have defects, both as regards form and action; but such are not to be construed into unsoundness. It is a remarkable fact that very few cribbers fail to perform the duties required of them. They may, once in a while, have an attack of colic; but that is not due to cribbing, but to indigestion; still the popular belief is, that cribbing is either the result or cause of colic. The author's opinion is, that cribbing is a habit acquired or hereditary; that the sound or grunt originates in the vocal organs, from air admitted within them and expelled without entering the trachea, and in consequence of air supplied to them from the lungs during expiration. The grunt is evidently an expiatory murmur, and the air necessary for producing such is derived from one of these sources. Some contend that the animal swallows wind and thus creates flatulency, colic, &c.; but the idea is perfectly ridiculous. It is our firm belief, based upon a knowledge of the structure of the parts involved in the mechanism of respiration that neither man nor horse, by voluntary act, ever has power to swallow atmospheric air. The organs of respiration and deglutition differ so materially in their anatomical and physiological relations—have each a special function to perform—that it is impossible for one to perform the function of the other which should be the case if a horse actually swallows wind—atmospheric air—and then, as some others contend, regurgitated it. On these grounds, we question, therefore, the correctness of either theory. If horses possessed the power of eructating wind or gas from the stomach, we might expect in violent cases of flatulency, to notice its escape in this way, which the author has never yet been able to do. Crib-biting, therefore, being nothing but a habit or vice, can only be corrected by means and appliances which prevent the subject from indulging in it. In this view, all sorts of contrivances have been resorted to, and among them was one which was invented by Sir Peter Sawin. The space between the bottom of the hay-rack and the outer edge of the manger is boarded over, forming a steep, inclined plane, leaving in this way, no edge or point on which the horse can fix his jaw. Attached is a glass or slide opened only at meal-time. He uses common bar soap as a preventive, which is to be rubbed on the edge or outside of the crib, and renewed as often as necessary.

DAVID GAY, of New London, N. H., says garget root, steeped in water, will cure sick pigs, if they are allowed to drink as much as they will of the liquor. It is a sure remedy for blind staggers, and costiveness, and excellent in other diseases. It is also good for cattle.

PRUNING EVERGREENS.

LEVI PARKER, of Wilmington, states that pines and other evergreen trees pruned in the latter part of May or early in June will not bleed or be

injured by the operation of pruning. He has tested them by many trials.

A GARDEN WEEDER.

I have a neat and handy little "weeder" for garden beds. It consists of two pieces of thin board about a foot long, 3 inches wide; these being placed 6 or 8 inches apart like the runners of a small sled, are fastened to a small piece of board at each end which comes to about $\frac{1}{2}$ inch above the bottom of the side pieces; at the top in the centre is another piece which serves as a handle. Upon the bottom are nailed 3 strips of sheet iron, ground to an edge, about $\frac{1}{2}$ inch wide, one at each end and one in the middle. When the ground is dry this is pushed along between the rows a little below the surface, and very neatly pulls up or cuts off the young weeds, and leaves them in the pathway. After a very little practice any one will be astonished to see how easily, thoroughly and quickly the work is done.

PLASTER—BUTTER WON'T COME.

MR. BROWN:—Permit me to inquire through the medium of your valuable paper, what is the best mode of applying plaster to potatoes or corn. I have never used any, and thought that I should try some this year. My soil is a dry, sandy loam, which has been plowed deep this spring, and barnyard manure turned in under the turf. Also, what the reason is that the "butter won't come?" I have three cows which have been kept on dry hay with a few carrots this winter, and have had a plenty of salt, and it requires sometimes three hours churning to bring the butter with the cream kept and prepared in the usual manner and churned at a temperature of about 62° Fahrenheit. Cannot some of your intelligent subscribers inform us of the cause of this, and the remedy. J. B. PHILBRICK.

South Deerfield, N. H., 1854.

REMARKS.—Sow broadcast on a portion of the land, and on another portion apply it to the hill or drills. In 1849, when the potato rot was at its height, we sowed about a pound of salt-petre and four pounds of plaster to the square rod, and had 235 bushels of excellent Chenango potatoes on an acre and a half of land.

THE POTATO ONION.

MR. BROWN:—I have recently seen an onion which is called the potato onion. It is described by Mr. ISHAM, of New Alstead, N. H., to be easily raised, profitable, and much milder than common sorts. He sets them out in hills, similar to seed onions; they grow in clusters of two or three large ones to six or eight in a hill. Mr. ISHAM sets out the smallest ones and he thinks they are the most profitable. L. H.

Northfield, Mass., 1854.

REMARKS.—Probably the common "top onion," so called, raised a good deal at the South, and much more mild than our common onion.

TO DRY CHERRIES AND PLUMS.—Stone them, and half. Pack them in jars, strewing sugar between each layer.

For the New England Farmer.

STATE OF VEGETATION AT THE CLOSE OF MAY.

Grass is abundant and luxuriant. We yesterday saw a field to which had been applied a sprinkling of the liquid collected at the stable, in which had been infused a quantity of guano, and we think we never saw a more marked effect, from the application of any fertilizing substance. The path of the application of the liquid, was as distinct, more than doubling the quantity, both in thickness and height, as would be that of the mower, casting his swath. This application was made about the first of the present month—not exceeding two hundred pounds of guano to the acre. If by applying \$5 worth of labor and material, a ton of hay can be created, it is not easy to specify a better investment. When facts like these are seen with our own eyes, here is an end of argument. Slur as much as you please, the application of *fancy manures*, the growing grass now waving in the breeze will outweigh all such slurs. On the same field is an illustration of the benefits arising from the application of the combinations of different fertilizers, but not so distinctly marked, as that of guano dissolved in urine.

The blossoms upon the apple trees still hold on, and give promise of a full harvest. Cherries are sparse, and poorly filled. Pears are falling from the trees. Peaches there are none. Corn planted since the 10th of May, is doing well; that which was planted earlier has a sickly appearance. An experienced farmer assures me, that he has grown as fine corn planted the last of May and first of June, as at any other period; and in confirmation of this, he is at this moment occupied in planting his corn, his ground having been waiting for the seed ten days or more. No benefit accrues from putting seed in the ground, before it is fitly prepared to receive it; "Once well done, is better than twice poorly." P.

May 31, 1854.

For the New England Farmer.

AUTUMNAL MARROW SQUASH.

MR. EDITOR:—The republication in your paper of this morning, of the facts stated by Mr. I. M. Ives, relating to the first introduction of the "autumnal marrow squash," by seeds that came in a letter from Northampton—brings to mind certain other facts, that came to my knowledge, in answer to inquiries suggested by Dr. Harris of Cambridge, on the same subject.

Without going through all the details, the substance of these were that Mrs. Tucker, of Salem, wife of Lewis Tucker, Esq., who formerly kept the Sun Tavern in Essex Street, furnished seeds of this squash to one E. Wellman Osborne, a gardener in Danvers, (now living at Ware, N. H.), who grew them and carried them into the market at Salem, several years, before the time mentioned by Mr. Ives. I do not doubt, that Mr. Ives supposed what he stated to be true; nor do I doubt, that Mr. Osborne knows what he states to be true. The same thing was known to Mr. Daniel Buxton, Jr., and Mr. Abram C. Osborne—men of as much accuracy of observation and recollection in all matters of vegetable culture, as any others. I simply mention these things in illustration of

the propriety of the old adage, "that one story is good, until another is told."

Very truly yours,

Danvers, May 27, 1854.

J. W. P.

SUMMER FEED FOR COWS AND PIGS.

MESSES. EDITORS:—I have an extra nice litter of 11 pigs, now nearly four months old. I wish to keep them all through the season, and fatten them. What can I raise most profitably for early and late feeding? I have clover growing finely, which I design partly for them. Is it better to fence a part of it, and turn them in, or keep them in the pen and mow the clover?

I have ten cows, a large portion of the milk of which is sold. I have not sufficient pasture unless I use for this purpose a field which for two years has been used as a meadow; and in this field and in the same enclosure, is an acre or more on which potatoes were planted last year. This acre I intended to have sowed very early to oats and grass, and then pasture the whole. But the season has been too wet to allow of this. Few persons in this region have sowed oats yet. Now can I hope to get any feed from the said acre this year? The loss of the use of this acre would not be great. Had I better pasture the remaining ten acres, till August or September and sow the one acre? Or would it be better to keep part of my cows in the stable and depend on soiling? The plan of soiling, exclusively, I intend to try as soon as I am prepared for it. I am only partially ready this season.

• When is the best time for sowing ashes and plaster? Where guano was sowed on grass three weeks since, would it be of any advantage to sow ashes and plaster?

New Britain, Ct.

The cheapest food for pigs through the season, that we know of, is tender young clover, refuse or sour milk, and in autumn, the dropping fruit of an apple orchard. Practical farmers differ as to the propriety of cutting clover and soil. One of the most skilful farmers in Western New York thinks it decidedly best to shut up his pigs, and cut and feed the clover to them, alleging, from his own experience, that running about a pasture wastes more value of flesh than the cost of soiling. Others have given a different opinion, but these may not have fed their pigs regularly, nor provided them with the necessary comforts of a close pen. Certain breeds may also be better adapted to confinement than others. We should like the results of accurate experiments on this subject. A crop of peas may be found advantageous as food for hogs.

The great objection to soiling cattle, is the amount of labor in cutting, and conveying to them their food, watering, cleaning stables, providing, and securing their comfort at all times, a part of which is apt to be neglected in this country of scarce and high priced labor. Although several favorable reports have been made in favor of soiling, the fact that it has never been adopted for any length of time, successfully, by our best farmers, is against its utility, and we cannot recommend it as a general practice. Keeping closely grazed pastures, is very unprofitable, it is true; cutting high grass will afford twice as much feed

from an acre; but the best way is to allow pastures to grow a foot high or more before turning in, and where portions of such pastures can be divided by hurdle fences, it is the best way.

It is commonly best to sow ashes on grass in autumn or winter, and plaster on clover early in spring. Experiment, only, can show where these measures will prove profitable. We do not perceive any advantage in sowing them after guano at this season, yet under particular circumstances, which experiment alone can decide, it may be successful.—*Es.*

THE EFFECT OF OXYGEN IN ACCELERATING GERMINATION.

Mr. Humboldt discovered, in 1793, that simple metallic substances are unfavorable to germination of plants, and that their oxide favor it in proportion to their degree of oxydation. This discovery induced him to search for a substance with which oxygen might be so weakly combined as to be easily separated; and he made choice of oxygenated muriatic acid gas, mixed with water. *Cresses* (*Leydium Satirum*) seed put into it showed germs in six hours; in water, thirty-two hours. The seeds exhibited an enormous quantity of air bubbles. These do not appear in the water till thirty or forty minutes.

These experiments, announced in Humboldt's *Flora*, and in his aphorisms on the chemical physiology of plants, have been repeated by others; they were made at a temperature of from 12 to 14 Reaumer (near 64° Fahrenheit.) In the summer of 1799, Humboldt began a new series of experiments, and found, that by joining the stimulus of caloric to that of oxygen, he was enabled still more to accelerate the progress of vegetation. He took the seeds of garden cress, peas, French beans, lettuce, and mignonette, equal quantities of which were thrown into pure water, and the oxygenated muriatic acid at a temperature of 88° Fahrenheit. *Cresses* exhibited germs in three hours in the oxygenated muriatic acid; while none in the water were seen till twenty-six hours. In the muriatic, nitric, or sulphuric acid, pure, or mixed with water, there was no germ at all.

These discoveries may one day be of great benefit in growing plants. Several distinguished philosophers have repeated them. Professor Phol, of Dresden, caused the seeds of a new kind of *Euphorbia*, (India rubber is one of them—*Meigs*.) taken from Bocconi's collection of dried plants, 110 or 120 years old, to germinate. Jacquin and Vandett Schott, at Vienna, tried all the old seeds of the Botanic Garden, twenty or thirty years old, every attempt to make them vegetate in the ground having failed, and he made the greater part of them vegetate; even the hardest seeds yielded to this agent. Very valuable plants are now growing in Vienna by this treatment. Humboldt made the seeds of *Clusia Rosea*, brought from the Bahamas by Boose, (and which had resisted every effort to make them grow in the ground,) vegetate by a new method of his—that is, by mixing the seeds with a paste made of the black oxide of manganese, and pouring over it diluted muriatic acid. The vessel in which the mixture is made must be covered, but not tight; for if so, an explosion will occur. The temperature of the mixture must be about 95° of Fahrenheit.—*Journal de Physique.*

For the New England Farmer.

REARING SILK WORMS.

MR. EDITOR:—Having had some experience in rearing the silk worm, and reeling cocoons, I venture to reply to your fair correspondent's inquiry, "can the worms be raised and the cocoons sold to advantage?" I answer, I do not think they can. Our climate is too changeable for the health of the worms; the change from dry to wet, which we frequently have about the first of August, creates a disease of the most fatal kind. I have seen it spread with such fearful rapidity, that out of a hundred thousand worms ready to spin their cocoons, not two thousand lived to complete their task. If your correspondent's trees are the white mulberry, they are much better for the health of the worm than any other variety, but the expense of picking the leaves is such that unless labor be very cheap, it will not pay, even if the worms prove healthy. The expense of machinery for making sewing silk would be considerable, a good twisting machine, if new, would, I think, cost at least two hundred dollars. The most profit would be to reel the cocoons and sell the raw silk, for which there is a ready market in this vicinity. Any mechanic can make a reeling machine in one or two days, if provided with a description of one.

I presume eggs can be procured in Connecticut, but I cannot refer to any individual who has them. Such further information as I possess will be freely given, if desired.

E. HERSEY.

Hingham, Mass.

For the New England Farmer.

WHAT A GARDEN SHOULD BE.

Having discussed Gardens at some length under their ornamental aspect, lest the accusation be brought that the useful has been forgotten, this article shall be devoted to the special consideration of the Kitchen Garden.

We are wrongly apt to associate with the word Garden, a corner of land filled with weeds and flowers, and another corner marked into rows, by a regiment of White Birch, bean poles, and pea bushes, with an intersprinkling of corn stalks, some squashes—vines, and a great deal of rubbish, where, as the country people say, the "Garden Sauce" is grown. Now, as the object of this article is to have a little talk about this very "Garden Sauce," let us see if we need to abandon our much loved vegetables, in improving our homestead, and making its surface, a little more pleasing to the eye.

Rather than abandon them, it would be better to lose much that would be pleasing of the purely ornamental, for in the country, people are very dependent upon the vegetables of their own growing, as markets are rare, and but ill supplied. Were there no other argument for their culture but this, it, alone, would be enough, but there is a still stronger one: few are aware how conducive to health the summer vegetables are; all authorities agree in recommending their free use; and the danger of cholera arises, not from the bad effects of good, fresh vegetables, so much as from the stale and wilted denizens of the market. It is always a matter of very great surprise to city residents, to find so little attention paid to the growth of anything but potatoes, corn, and a few beans, in the country. Leaving bricks and dust for green

lanes and trees, they revel in the fresh air, and with a keen appetite, eagerly await the promised dinner, imagining all the dainties of the vegetable world they have heard of, strawberries and cream, green peas, sweet corn, tomatoes, &c. When to their surprise they see the kitchen maid returning from the neighbor's with a bought, or borrowed pint of milk, and meet with the excuse from the matron, that "she regrets the lack of asparagus, lettuce, &c., but the butcher didn't bring any, and it's so hard to get vegetables in the country." The difficulty lies in *the dread of trouble, not in the trouble itself*: do not be so afraid, good sir, after you have come home from the day's work, to drop a few peas, or tomatoes or lettuce seeds! and do not let your imagination dwell, upon the hot days' weedings by and bye.

It is a great shame, that it should be universally true, that it is no where so difficult to get vegetables as in the country. It will not do for you to say, anytime will answer for that work. Anytime is no time. Believe me, the ten minutes of aggravation a day, your wife will feel when the dinner presents no variety; of disappointment you will experience when you find your wife is not a fairy, and cannot produce baked beans and potato in any other shape than baked beans and potato, and is unable to alter the everlasting veal and bread, into green peas and sweet corn,—is much more, than the mere trouble of weeding and sowing the seed. But weight enough has not been given to the healthfulness of vegetables: we are too essentially a meat-eating race; we do not know how to make the most of things; and hundreds of poor families might enjoy a luxurious variety, would they but use the bounties of the vegetable world. The English and European peasantry, live entirely on a vegetable diet, and yet are quite as healthy as we are, and hundreds and thousands of our poor people have more sumptuous meat fare, than the majority of the inhabitants of the old world. Lay off, then, in your garden, a bit of land; plant a few of the different vegetables, just enough to supply yourself, and do not make that fatal mistake of getting so much land under culture.

People are inclined to go to work too largely, and plant enough of a few things, to supply several families, and then to allow the quantity to take the place of variety. It is very easy to calculate how much you will want, and when you have decided do not plant all at once, but have a succession; plant a row of peas and corn to-day, another in a week, and another the third week; then have a few hills of squashes, summer and winter, and remember it is no economy to cover the land with winter squashes to the exclusion of summer vegetables;—it is robbing Peter to pay Paul, and no gain; then a few hills of melons, some distance from the squashes, to prevent impregnation of seed. Have some ten tomato plants, a little patch, ten feet square, of carrots, another of parsnips, a few hills of rhubarb, or pie plant, a small square, say 20x20, of asparagus, and dotted in, a few pepper plants, some cucumbers, and in a corner by themselves, one hundred raspberry vines with two or three strawberry beds, 4x20 feet. On the edge of the walk, set currants and gooseberries, and a little farther in, dwarf pears. By a judicious selection of place, you can get two or three crops a year from some of the land; the par-

snips will be eaten before time of planting, when their place may be taken by radishes, and they be followed by peas, and they by a few turnips. To the other early peas, the parsnips may follow: on the corn land you can grow squashes, and *vice versa*.

Half an acre arranged in this way, will give all that a family of six persons can possibly need, but be sure to remember at starting, that you want no more land under culture, than you can keep free from weeds, and to plant no greater quantity than you can use yourself. Where the most of the surface is under culture, and the ornamental is entirely excluded, there is danger of a too great spirit of utility; therefore do not forget that we must feed the mind and soul as well as the body, but pay a due regard to both. It is very desirable, however, to keep each division by itself, and not mix them together heterogeneously. No one wishes to see gilly-flowers and cabbages side by side, because they are of the same family; let the two divisions be just as separate as parlor and kitchen, but do not omit either any more than one of these two rooms from your house. It may seem rather late to make this appeal for the vegetables, but there is yet time for tomatoes, late peas, sweet corn, carrots, parsnips, and cabbages, and when you read over this list, recall the savory dishes they may be compounded into, and be willing to give your wife the assistance you can, in the culinary department. Lest the succession of the vegetables should be forgotten, an enumeration may be of service; first parsnips, then asparagus, rhubarb, radishes, lettuce, dandelions, peas, beans, cucumbers, corn, squashes, tomatoes, carrots, turnips, cabbages and potatoes. For fruits, strawberries, raspberries, currants, cherries, melons, pears, peaches and apples,—all within the reach of every owner of one hundred and fifty feet square of land.

R. MORRIS COPELAND.

Rosbury, June 3, 1854.

PRODUCTION OF BUDS AND SEEDS.

- In considering the production of vegetable buds and seeds, of some insects, of more perfect animals, says Erasmus Darwin in the *Zoonomia*, the modes of generation may be divided into solitary and sexual. The first consists in solitary, lateral generation, as in the reproduction of weeds and bulbs of vegetables, and of the young of the polypus, and of the *hydra stentoria*, or of the solitary internal generation, as of the *aphis*, *wine fretter*, *actenia*, *sea anemone*, *icia*, *tape worm* and *soloea*; all of which are properly a viviparous progeny, as they are produced by spawn, or eggs, or seeds. In these modes it is believed that fibrils with formative attitudes, and molecules with formative propensities, produced by, or detached from, various essential parts of their respective systems, float in the vegetable or insect blood. These may be termed animalized particles of primary combination, consisting of a solid particle adjoined to a peculiar appetancy or propensity; which latter may be termed its *etherial part*; as magnetism or electricity may be added to iron or to other inanimate bodies.

The various ways in which plants are propagated, opens a wide field of observation to the student. The various phenomena involved in the evolution of the almost innumerable species of vegetable productions, and the singular and astonishing wisdom with which means are adapted to ends, will afford ample scope for the investigation of the most acuminated and persevering intellect, and is a field, the treasures of which human genius and perseverance can never entirely exhaust.

WHAT A WHOLE CROP CARRIES OFF.

Below we give another chapter from JOHNSON'S "Elements of Agricultural Chemistry and Geology," which we think will be found interesting to every reader, whether he cultivates the soil or not. There are so few technical terms employed, and the author's meaning is made so clear by the use of forcible and perspicuous language, that we always take up the work with a new pleasure. And so will others.

The importance of the inorganic matter contained in living vegetables, or in vegetable substances when reaped and dry, will appear more distinctly if we consider the actual quantity carried off from the soil in the series of crop.

In a four years' course of cropping, in which the crops gathered amounted per acre to—

1st year, Turnips, 20 tons of bulbs and 6½ tons of tops.
2d year, Barley, 40 bushels of 63 lbs. each, and 1 ton of straw.
3d year, Clover and Rye-Grass, 1½ ton of each in hay.
4th year, Wheat, 25 bushels of 60 lbs., and 1½ tons of straw.

1°. The quantity of inorganic matter carried off in the four crops, supposing none of them to be eaten on the land, amounts to about—

Potash.....	317 lbs.	Sulphuric acid.....	106 lbs.
Soda.....	54 "	Phosphoric acid.....	116 "
Lime.....	193 "	Chlorine.....	70 "
Magnesia.....	65 "		
Oxide of iron.....	15 "	Total.....	1294 "
Silica.....	358 "		

or in all about 11 cwt.; of which gross weight the different substances form unlike proportions.

2°. As till clearer view of these quantities will be obtained by a consideration of the fact, that if we carry off the entire produce, and add none of it again in the shape of manure, we must or ought; in its stead, if the land is to be restored to its original condition, to add to each acre every four years—

Dry pearl-ash.....	465 lbs.
Common bone-dust.....	562 "
Epsom salts.....	326 "
Common salt.....	116 "
Quick-lime.....	70 "
Total.....	1639 lbs.

Several observations suggest themselves from a consideration of the above statements.

First, That if this inorganic matter be really necessary to the plant, the gradual and constant removal of it from the land ought, by and by, to make the soil poorer in this part of the food of plants.

Second, That the more of the crops which grow upon the land we return to it again in the form of manure, the less will this deterioration be perceptible.

Third, That as many of these inorganic substances—the potash, soda, &c.,—are readily soluble in water, the liquid manure of the farmyard, so often allowed to run to waste, must carry with it to the rivers much of the saline matter that ought to be returned to the land.

Fourth, If the rains also are allowed to run over and wash the surface of the soil, they will gradually deprive it of those soluble saline substances which appear to be so necessary to the growth of plants. Hence one important benefit of a system of drainage so perfect as to allow the rains to sink into the soil where they fall, and thus to carry down, instead of away, what they naturally dissolve.

And, *lastly*, That the utility, and often indispensable necessity, of certain artificial manures—though, in some districts, perhaps arising from the natural poverty of the land in some of the mineral substances which plants require—is most frequently owing to a want of acquaintance with the facts above stated, and to the long-continued neglect and waste which has been the natural consequence.

In certain districts, the soil and subsoil contain within themselves an almost unfailing supply of some of these inorganic or mineral substances, so that the waste of them is long in being felt; in others, again, the land contains less, and therefore becomes sooner exhausted. This latter class of soils requires a more careful, and usually a more expensive mode of cultivation than the first; but both will become at length alike unproductive, if that which is yearly taken from the soil is not in some form or other restored to it.

One thing is of essential importance to be remembered by the practical farmer—that the deterioration of land is often an exceedingly slow process. In the hands of successive generations, a field may so imperceptibly become less valuable, that a century may elapse before the change prove such as to make a sensible diminution in the valued rental. Such slow changes, however, have been seldom recorded; and hence the practical man is occasionally led to despise the clearest theoretical principles, because he has not happened to see them verified in his own limited experience; and to neglect, therefore, the suggestions and the wise precautions which these principles lay before him.

The special agricultural history of known tracts of land of different qualities, showing how they had been cropped and tilled, and the average produce in grain, hay, and stock every five years, during an entire century, would afford invaluable materials both to theoretical and to practical agriculture.

General illustrations of this sure though slow decay may be met with in the agricultural history of almost every country. In none, perhaps, are they more striking than in the older slave States of North America. Maryland, Virginia and North Carolina—once rich and fertile—by a long-continued system of forced and exhausting culture, have become unproductive in many places, and vast tracts have been abandoned to apparently hopeless sterility. Such lands it is possible to reclaim, but at what an expense of time, labor, manure, and skilful management! It is to be hoped that the newer States will not thus sacrifice their future power and prospects to present and temporary wealth—that the fine lands of Ohio, Ken-

tucky, and the Prairie states, which now yield Indian corn and wheat, crop after crop, without intermission and without manure, will not be so cropped till their strength and substance is gone, but that a better conducted and more skilful husbandry will continue, without diminishing the present crops, to secure a permanent fertility to that naturally rich and productive country.

PRACTICAL DEDUCTIONS TO BE DRAWN FROM A KNOWLEDGE OF THE INORGANIC CONSTITUENTS OF PLANTS.

Several important practical deductions are to be drawn from what has been stated in regard to the inorganic constituents of plants.

1°. *Why one crop may grow well where another fails.*—Suppose, for example, a crop to require a peculiarly large supply of potash—it may grow well if the soil abound in potash; but if the soil be deficient in potash and abound in lime, then this crop may scarcely grow at all upon it, while another crop to which lime is especially necessary may grow luxuriantly.

2°. *Why mixed crops grow well together.*—If two crops of unlike kinds be sown together, their roots suck in the inorganic substances in different proportions—the one more potash and phosphoric acid perhaps—the other more lime, magnesia, or silica. They thus interfere less with each other than plants of the same kind do—which require the same kinds of food in nearly the same proportions.

Or the two kinds of crop grow with different degrees of rapidity, or at different periods of the year; and thus, while the roots of the one are busy drawing in supplies of inorganic nourishment, those of the other are comparatively idle; and thus the soil is able abundantly to supply the wants of each as its time of need arrives.

3°. *Why the same crop grows better on the same soil after long intervals.*—If each crop demands special substances, or these substances in quantities peculiar to itself, or in some peculiar state of combination, the chances that the soil will be able to supply them are greater, the more distant the intervals at which the same crop is grown upon it. Other crops do not demand the same substances, or in the same proportions; and thus they may gradually accumulate on the soil till it becomes especially favorable to the particular crop we wish to grow.

4°. *Why a rotation crop is necessary.*—Suppose the soil to contain a certain average supply of all those inorganic substances which plants require and that the same corn crop is grown upon it for a long series of years—this crop will carry off some of these substances in larger proportion than others, so that year by year the quantity of those which are thus chiefly carried off will become relatively less. Thus at length the soil, for want of these special substances, will become unable to bear a corn crop at all, though it may still contain a large store of the other inorganic substances which the corn crop does not specially exhaust. Suppose bean or turnip crops raised in like manner for a succession of years, they would exhaust the soil of a different set of substances till it became unable to grow them profitably, though still rich perhaps in those things which the corn crop especially demands.

But grow these crops alternately, then the one crop will draw especially upon one class of sub-

stances, the other crop upon another; and thus much larger crops of each will be reaped from the same soil, and for a much longer period of time.

On this principle the benefit of a rotation of crops in an important degree depends.

5°. *What is meant by exhaustion.*—Thus, exhaustion may either be *general*, arising from the gradual carrying off of all the kinds of food on which plants live—or *special*, arising from the want of one or more of those substances which the crops that have been long grown upon it have specially required.

To repair the former kind of exhaustion, an addition of many things to the soil may be necessary;—to repair the latter, it may be sufficient to add a needful supply of one or more things only. In showing how this may be most efficiently and most economically done, chemistry will be of the most essential service to the practical man. Before entering further upon this point, however, it will be necessary to study also the nature of the soil in which plants grow.

CATERPILLARS.

These are a great pest to farmers, though comparatively harmless in a city. The eggs from which they are hatched are placed around the ends of the branches, forming a wide ring consisting of three or four hundred eggs in the form of short cylinders, standing on their ends close together, and covered with a thick coat of brownish water-proof varnish. The caterpillars come forth with the unfolding the leaves of the apple and cherry trees in the latter part of April or the beginning of May. The first signs of their activity appear in the formation of little angular webs between the fork of the branches a little below the cluster of eggs.

Under the shelter of these tents the caterpillars remain concealed at all times when not engaged in eating. In crawling from twig to twig, they spin, from their mouths, a slender silken thread, which is a clue to conduct them back to their tents. They gradually enlarge their nests until they acquire a diameter of eight or ten inches. They come out together about 9 A. M. to eat, and all retire at once when their regular meals are finished. During bad weather, however, they fast, and do not venture from their shelter.

From the first to the middle of June they begin to leave the trees, wander about a while, and finally get into some cuvier or other place of shelter, and make their cocoons. From fourteen to seventeen days thereafter, the insect bursts its chrysalis skin, forces its way into the softened end of the cocoon and appears in the miller form. It is then of nasty or reddish brown color, and expands from an inch and a quarter to an inch and a half. These millers appear in great numbers in July, flying about and often entering houses by night. At this time they lay their eggs, preferring the wild cherry, and next the apple.

Where proper attention is not paid to the destruction of them, they almost entirely strip the apple and cherry trees of their foliage during the seven weeks of their life in their caterpillar form. The trees, where they are suffered to breed for a succession of years, become prematurely old, in consequence of their efforts to repair, at an unreasonable time, the loss of their foliage, and are rendered unfruitful and worse than useless.

How are they to be destroyed?

1st. During the winter and spring collect and destroy the eggs. They are then readily discovered, and may all be removed with little trouble.

2d. When the destruction of the eggs has been neglected or overlooked, and the caterpillars are building their nests, prepare some whale or train oil, the stronger and more rancid the better. Then take a light pole of convenient length, with a swab upon the end, and rub the oil into the nests. It is well to rub it also upon the limbs just above and below the nests. This operation is best performed some misty or foggy morning before the worms leave their nests. I know by abundant experience that it will entirely destroy every nest upon which it is performed, and every caterpillar in the nest.

3d. When the time for this process is past, and the millers begin to appear in July, hang upon the trees wide-mouthed bottles one-third filled with two parts of vinegar and one of molasses. In this way myriads may be caught.

In my small garden I made this experiment last season with twenty-four bottles hung upon the fence. In seven days from June 16th I caught forty-two quarts of millers and flies, but the amount gradually decreased to about half a pint a day. I then placed the bottles in my large pear trees, and the number taken was greatly increased. The whole amount thus caught during the season was four bushels and twelve quarts.

May 29, 1854.

CHARLES ROBINSON.
New Haven Palladium.

For the New England Farmer.

THE FARMER'S HOME.

MR. EDITOR:—Having during the past year travelled through a portion of this, and some of the adjoining New England States, I have had an opportunity to observe many New England farmers' homes.

While there are some which present a pleasing and inviting aspect, there are many so cheerless and uninviting, that they seem to send a chill through one's whole frame. Buildings are located without any regard to appearance, and every ornamental tree and shrub in their vicinity has fallen before the woodman's axe without a thought except how many potatoes could be grown on the land; in front of the dwelling, where should be gravelled walks, graceful shade trees, beautiful shrubs, carefully trained climbing vines and pretty flowers, are geese and pigs; or bleating calves and noisy ducks whose utility seems to consist in giving the inmates of the house timely notice of the approach of a stranger, who easily judges of the number of acres the farmer possesses, by the size of the wood-pile and the number of broken wheels, carts, sleds, plows, and other worn-out farming implements which flank the yard on either side. Should the stranger, before entering the house, desire to learn more of the character of the person he is about to visit, he has but to cast his eye into the adjoining shed, one end of which is used as a tool house; if plows, harrows, and other implements are in one confused mass, and their appearance indicates that the hen-roost is above, he may safely conclude that if the boys have not already gone to the city with the idea that farming is pretty dirty business, it is only because they are not yet old enough to carry out their own desires.

The man who can take hold of the handles of such plows as I have seen, and not look back, must be one whose mind is so absorbed in the word *utility* that he thinks of nothing but the fattening of his land as each turning furrow scrapes guano from his plow, not even perceiving the increase of his own weight, by an external application of the same material upon his hands.

I do not believe man was placed here to spend his whole time in procuring gold with which to enlarge his farm, for what profiteth it a man if he gain the whole township and lose his own happiness? The farmer who would keep his children at home, should neglect nothing within his means to make his home attractive. Let neatness and order manifest itself in every department; let him beautify what he already possesses, rather than enlarge his farm, and thus make his home so attractive that his children no longer seek the artificial beauties of the city, but become satisfied with the purer and superior attractions of their rural home. There is perhaps no class better able to make their homes attractive than the farmer, but in his eagerness to acquire more territory he often fails to perceive it.

I could name individuals who own hundreds of acres of land, but cannot spare a rod for a flower-garden for their daughters, or an acre for an orchard for their sons, and yet lament that their daughters yearn to be tending the loom of some manufacturing company, and their sons the counter of some city merchant.

I cannot but hope that the time is fast approaching when the farmer will be as eager to satisfy the wants of his family, as he now is those of a stranger, and thus make his home a happy one, and his children contented.

E. HERSEY.

Hingham, Mass.

For the New England Farmer.

WINTER IN MISSISSIPPI.

A winter in Mississippi has none of those exhilarating accompaniments which characterize a New England winter; no merry sleigh-bells, no skating, no coasting. One never sees here, mother earth, covered with her pure, snowy mantle; or the trees hung with glittering crystals. Yet, a winter in Mississippi is not without its charms. If it has not a coronet of diamonds, it wears a wreath of roses. Winter in Mississippi is like life itself, a strange mingling of sunshine, clouds and rain. Now, the genial sun warms into life and beauty the slumbering rose-buds, and the gardens are blooming with hyacinths, narcissus, and other varieties of the bulbous family. The forests, too, are interspersed with evergreens; the dark, rich magnolia, with its lustrous foliage glistening in the sunshine; the brighter, more cheerful holly, with its coral berries, the hopes, water-oak, with a variety of others, peculiar to this latitude; so that, although many of the trees shed their leaves in autumn, the forests never wear that aspect of desolation, that they do in colder climates, during the winter months. Then, too, there are miles, and miles of hedge, made of the beautiful, evergreen, Cherokee rose. One of the most pleasing features of a southern landscape in February, is the yellow jessamine, its evergreen foliage, contrasting beautifully, with its profusion of golden blossoms; perfuming the air with

a delicious fragrance resembling heliotrope. Each particular flower, viewed separately, is not strikingly beautiful; but the vine itself, twining around the fence corners, or hanging in graceful festoons from the smaller trees, laden with sweet blossoms, has a charming effect. The variety of the feathered tribe adds another beauty to our winter scene. Besides the gay red-bird, mocking-bird, and other birds peculiar to the South, we have some dear little robins from good old Massachusetts. Who knows but they are the very ones that build their nest, every year, in the old elm, that shades our own "Beloved Home?"

But all is not sunshine in Mississippi. Winter has its clouds and storms. The to-day, so bright and beautiful, is succeeded by a dark to-morrow. The pattering of the rain-drops is the first sound that greets the ear in the morning, and it lulls you to slumber at night. Day after day, the rain comes down. Then the weather gradually becomes colder, and colder, and at last the clouds are dissipated, and the glorious sun shines forth in all his splendor. Then follow three white frosts, then a few days of warmth and sunshine, then a rain. Winter does not put a stop to the work on a plantation. The negroes are busy, plowing, making fences, and clearing land, to be in readiness to plant the corn and cotton in the spring. Christmas comes once a year, and is observed with festivities corresponding to Thanksgiving in New England. There is a whole week of holidays, which the servants enjoy vastly, in a succession of parties and visiting. There is a fiddler on almost every plantation, and music, and dancing are enjoyed with as keen a relish in the cabin by torch-light, as in the brilliantly illuminated ball-room.

Houses in Mississippi are not built so much in reference to comfort in winter, as in summer, and stoves are regarded as abominations, not to be tolerated.

In a cold day, a cheerful fire is blazing on the hearth, but there is such a mania for fresh air, that the doors and windows must be wide open, so there is no danger of being too warm. Happily, however, the very cold days are few, and far between.

Of the amusements, and pleasures of winter on a plantation, but little can be said. The gentlemen are great hunters, and untrilled equestrians, and the ladies, too, are fond of riding on horseback. But there are no lyceums, or concerts, so that we are dependent on our own resources for enjoyment.

M. E. S.

Kellertown, Miss., May, 1854.

REMARKS.—We are glad that the intelligent daughters of Massachusetts still retain an interest in the columns they were in the habit of perusing before becoming citizens of the West. We shall be glad to hear from "M. E. S." again.

TO CORRESPONDENTS.—A "FARMER" will find our views briefly expressed in another part of the paper, in relation to the subject upon which he writes. Perhaps he has written under some misunderstanding of the article which he criticises. Several inquiries and valuable communications are on hand, which shall receive attention.

COST OF MANURE.

How many farmers continue to work their farms without profit, for the want of a sufficient amount of fertilizers, and many, too, whose income from other sources than their farms, enables them every year to loan an excess on mortgage. Nine-tenths of their time and energies are spent in tilling the poor and worthless farm, to prevent its running them in debt, and still, they are unwilling to invest a single dollar in the purchase of manure, to be refunded with double interest in a single season.

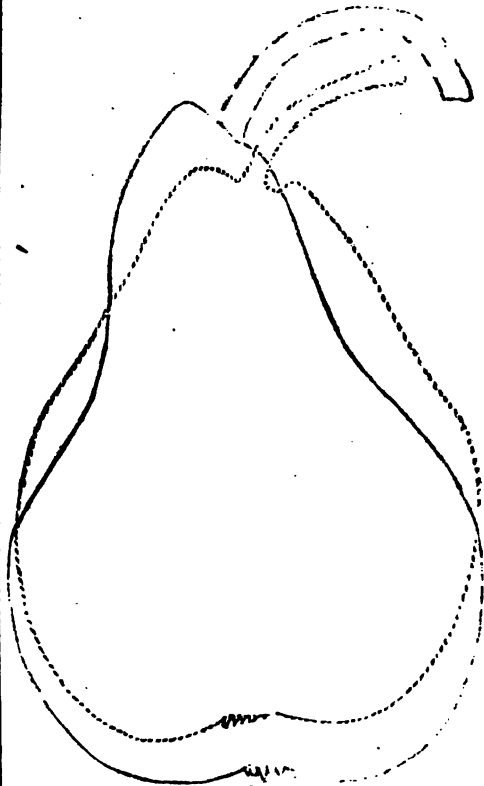
The question simply should be, will a dollar's worth of manure produce more than 100 cents worth of corn beyond the expense of producing it, and beyond the natural crop of the land. We say that an extra dollar properly invested in manures, will produce an excess crop of five dollars worth of corn in a single year, and, in many cases, a much larger ratio of increase, besides leaving the land worth nearly, or all the cost of manure, better for future crops. What would be said of the merchant who should loan so much of his capital on bond and mortgage, that he had not sufficient means to keep the necessary stock of goods to supply his customers? And why should the farmer loan his money to others at six per cent. per annum, when he could earn a profit, in addition to the interest, by using it himself? When a farmer's income is truly in excess of his farm, then he is consulting his best interest by investing his money where it may be used by others for his benefit; but until his own business is properly cared for, he is wrong to part with the means necessary to its success.

Many a farmer now worth \$1000 beyond his farm was worth the same on arriving of age, and might have rendered his farm capable of producing a similar sum every year in excess of his wants, if, during the first year of his business, he had placed the \$1000 in his soil in the shape of manure. Nor is this truth confined to the wealthy farmer, for many who now work 100 acres of land and remain poor, might become comparatively rich in a few years, by using the same amount of manure on 50 acres which they now use on 100. So long as further additions of manure will increase the product beyond cost, the farmer should continue to increase the quantity used; and if he cannot do so by any other means, he should reduce the quantity of land tilled.—*Working Farmer.*

THE BEURRE BOSCH PEAR.

ELLIOT, in his new work on Fruit, says this pear should have a place in the smallest collection. DOWNING goes farther, and gives it unqualified praise. He says it is large, handsome, a regular bearer, always perfect, and of the highest flavor. It bears singly, and not in clusters, looking as if thinned on the tree, where it is always of fine size. It was raised in 1807 by Van Mons, and named *Calebasse Bosch* in honor of M. Bosch, a distinguished Belgian cultivator. Having also been received at the garden of the Horticultural Society of London, under the name of *Beurre Bosch*, Mr. Thompson thought it best to retain this name, as less likely to lead to a confusion with the *Calebasse*, a distinct fruit. The tree grows vigorously;

shoots long, brownish olive. Fruit large; pyriform, a little uneven, tapering long and gradually into the stalk. Skin pretty smooth, dark yellow, a good deal covered with streaks and dots of cinnamon russet, and slightly touched with red on one side. Stalk one or two inches long, rather slender, curved. Calyx short, set in a very shallow basin. Flesh white, melting very buttery, with a rich delicious, and slightly perfumed flavor. Ripens gradually, from the last of September to the last of October.



THE ANDREWS PEAR.

This pear (dotted outline) is stated by DOWNING to be a favorite native seedling. It is found in the neighborhood of Dorchester, and first introduced to notice by a gentleman of Boston, whose name it bears. It has, for the last 15 years, been one of the most popular fruits. It is of most excellent flavor, a certain and regular bearer, even while young, and the tree which is very hardy, never suffers from blight. Fruit rather large, pyriform, one sided. Skin smooth, and rather thick, pale yellowish green, with a dull red cheek, and a few scattered dots. Stalk about an inch and a quarter long, curved, set in a very shallow, blunt depression, or often without depression. Calyx open, placed in a small basin. Flesh greenish-white, full of juice, melting, with a fine vinous flavor. Early in September. Shoots diverging, light olive.

For the New England Farmer.

SILK CULTURE.

MR. EDITOR:—In the *Farmer* of May 27th, an inquiry on this subject is presented by a "New Hampshire Girl."

Somewhat more than twenty years have elapsed since a movement was commenced, in which the writer of this article took a zealous and rather prominent part, to introduce the raising of silk into Massachusetts. Considerable expense was incurred to colonize the mulberry tree and the silk worm from Connecticut. The attempt was successful, and prosperity attended the enterprise under the auspices and fostering aid of agricultural societies and the legislature of the State, until a blight came over it in the shape of a disastrous speculation in mulberry trees. The ruin produced by this folly was so signal, as to chill the ardor and stagnate the efforts of many, who had enlisted in the cause with high expectations, and with enthusiasm in due proportion. The waning that followed was even more rapid, than the waxing which had preceded. Still it may be said, that the amount of raw silk produced, and in a fit state for the manufacturer, was quite considerable. The market, however, declined, and was soon at an end.

The last act, on the part of the writer of this article, to sustain an interest to which he had devoted so much attention and labor, was the introduction and advocating of a motion, in the Massachusetts Legislature, to encourage females, by bounty, to manufacture sewing silk, which may be done with little outlay. The committee, to which the question was referred, did not report favorably to the plan, and the sun of hope went down in despair.

Now, in reference to particulars of the information wanted, it may be said, that the machinery for getting raw silk from the cocoon is a reel, the cost of which, when the article was in demand, was about \$10, as manufactured in various places; in Dedham, for one instance, in the vicinity of Boston. (In how many cocklofts it may be stowed away among other useless lumber, for want of employment, is matter of conjecture only.) The eggs for the worm may, probably, be obtained any where in the region of silk-growing, and Mansfield in Connecticut, is as likely a place as any to be in a condition of perseverance, as regards this kind of husbandry.

Should any one resolve on making a trial of the business, directions how to proceed may be gathered, unquestionably, from the archives of the State, and the *New England Farmer* also, from within the limits of that period especially, when Rev. Henry Colman was Agricultural Commissioner, and likewise editor of the *New England Farmer*.

If I could be of any service to the "New Hampshire Girl," in the way of offering suggestions, I might address her in a strain something like the following: "Dear Miss, if you have any thing of the spirit, the ardor, the indomitable resolution of Joan of Arc, and can get access to comrades, in any considerable number, of like temperament, sentiments and feelings, disposed to embark with you in a scheme so doubtful, yet so laudable, bring them together in convention, (female conventions you know, are as common as daisies in

the spring,) and make formal representation, by resolution, to the conscript fathers, (which in modern dialect means young men, mere striplings,) of the Granite State in legislative halls assembled, that the daughters of the Commonwealth are not averse to sharing in the industry necessary to the common weal, and would gladly be put in the way of earning and even producing, some portion, at least, of the silks indispensable to the adorning of their persons. They, therefore, humbly petition your honorable body to adopt measures for retaining at home a moiety of the immense sums of money sent abroad for silk goods, and let it be so invested as to give employment to female hands, and shield them from poverty, vice and degradation. If this expedient fails, try the agricultural societies, and ask them, if it will not profit the country as much, to have our silks produced at home, as to have our soil occupied with other fancy articles, which cannot be transplanted from distant regions but at great expense. Let cattle, hogs and hens, which eat up so much of our farming wealth to gratify a taste for imported stock, remain where they are engendered, and let the industry which is wanted to give scope to unemployed hands and to furnish us with home enjoyments, without going far away to obtain them, have the benefit of the outlay."

The residue of the argument I have in embryo. J. F.

Charlton, June 8, 1854.

INFLUENCE OF MACHINERY ON CIVILIZATION.

The annexed eloquent extract is from the "*Philadelphia Daily Ledger*,"—a paper always able and uniformly correct:—

"The influence of these reforms on civilization cannot be estimated too highly. The old prejudice against machinery, which never had any hold on men of real intelligence, is now disappearing even from the minds of the most ignorant. Everywhere the great truth is being acknowledged, that the influence of machinery is to elevate the condition of the human race, by substituting skilled labor and directing talent for mere executive work. In other words, men are elevated, so far forth, from machines to makers and controllers of machines. The higher qualities of their nature are being called into exercise. Instead of going the same unvaried round of labor for generation after generation, like a blind horse forever travelling the narrow circuit of a mill, they are throwing the burden of all mere mechanical work on machinery, subjecting the dull and inanimate forces of nature to their will, and making iron and steel submissive agents. If the reforms, already made in this direction, afford any criterion for the future, the time will come eventually, when nearly all that is irksome in labor will be avoided, and then that part of the curse pronounced on Adam at least be alleviated.

Yet this aspect of the influence of machinery and civilization, though the most important, is precisely the one least regarded. It is far more common to hear the cheapening effects of machinery extolled than to have these enfranchising and elevating influences pointed out. We do not deny that the placing of cottage goods with the reach of the poorest, has materially improved the physi-

cal condition of the human race, and therefore indirectly refined and enlightened mankind. But this is only the ultimate, not the proximate result. Nor is it without alloy. And to a certain extent the effect of machinery in this direction is enervating and sensualizing. It advances civilization in its physical aspect, but not in its moral, intellectual, and religious ones. It fosters less the spiritual and mental part of humanity than that baser part which is 'of the earth, earthy.' But machinery, regarded as a means to banish man's slavery to toil, by substituting brain-work for the labor of the hand, is the high road to that fuller and more perfect development of society, which poets have painted, philosophers predicted, and revelation, it is believed by many, expressly promised."

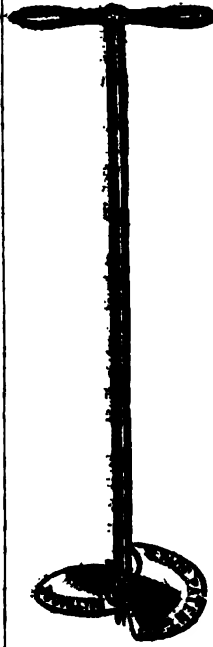
For the New-England Farmer.

SOUTH DOWN SHEEP.

MR. EDITOR:—I read last evening in the *Farmer* the discussion on sheep, and was somewhat interested. I keep South Downs, and like them much; they are quiet, thrifty and handsome, without. I sold one of my neighbors 26, last fall, and a short time since I called to see them, and they had 48 as fine lambs as need be; one sheep had three, and all doing well. I sold the wether lambs from them last year at \$4 per head, to the butcher—my neighbor will probably get more than that for them this year, (and there is no doubt at all but he can, if he chooses.) We will say that he got \$200 for lambs, and allow say \$40—a low figure—for wool, gives \$240, a handsome return from only 26 sheep. The sheep were nearly all half blood, except three, perhaps, that were nearly full bred. I have a flock of full blood consisting of 80 that have now living, and about two months old, 48 lambs (if I count right) the same number as my neighbor gets from his 26 mixed breed. The mixed breeds seem as hardy, and about as productive, as the full bloods; perhaps they are more profitable for practical purposes, as they generally shear considerably heavier fleeces. I get more for my lambs when I sell them, on account of the breed. I sold all the bucks I had last year, at prices varying for 7 or 8 to 25 dollars, as for quality and size, and bought one of L. G. MOZAM for \$50. I have this year a few nice lambs sired by an imported buck now owned by J. THOMAS, of Dutchess Co., that sold in England for \$650; they are good lambs, but a stranger could not, I think, select them from among the others. T. B. BURRUM.
Newport, R. I., 1854.

LASTING EFFECTS OF HEAT.—The French, during the time their army remained under Bonaparte in the Holy Land, constructed two very large ovens in the castle of Tiberias. Two years had elapsed at the time of our arrival since they had set fire to their granary; and it was considered a miracle by the inhabitants of Tiberias, that the combustion was not extinguished. We visited the place, and perceived that whenever the ashes of the burned corn were stirred by thrusting a stick among them, sparks were even then glowing throughout the heap, and a piece of wood being left there became charred. The heat in those vaulted chambers where the corn had been destroyed was still very great.—*Clarke's Travel.*

THE POST AUGER.



Digging post holes with a common spade is a somewhat slow and fatiguing operation, and may be much facilitated with a good post auger, such as is represented above. This auger is used in a way similar to the common auger for boring timber, and with it post holes are readily made in sand, loam, clay or alluvial soils. We hope it may not be objected to because its construction is a little more scientific than the spade. The high price of labor urges us, at any rate, to avail ourselves of all the labor-saving implements that we can.

For the New England Farmer.

WELL-DIGGING.

BLETONISM. The faculty of perceiving and indicating subterranean springs and currents by sensation; so called from one Bleton, of France, who was supposed to possess this faculty. Vide Dr. Webster, *in loco*.

BLETONIST. One who has the faculty of perceiving subterranean springs by sensation. Vide Dr. Worcester.

As acknowledged, there are more things in heaven and earth than our philosophy has hitherto dreamed of, the probable presumption arises that the idea involved in the above terms and definitions is not a mere chimera, but a fixed fact which may be rendered subservient to the general good.

Let certain persons take a "fork" of cherry, peach, hazel, willow, or the like, of one or two years growth, full of sap, and so hold the extremities, firmly grasped in the hands, that the fork will be upward; when they come into the vicinity of a spring of living water, the fork will bend toward it, and when the person stands immediately over the water, the rod will point directly downward.

In the hands of others, the fork, or a "divining rod" prepared for the purpose, will turn *from*, instead of *to* the water, yet will indicate its locality with nearly equal exactness.

A good Bletonist will also discover silver, iron and other ores by means of the rod, and persons often amuse each other by hiding a half-dollar in the ground, within a prescribed limit, and the diviner finding it with almost absolute certainty.

As intimated there are only certain persons, in whose hands the rod will work, and in some of these, not at all times; it therefore becomes an

important question, in whose hands will it work, and why not at all times!

Electrically, the race is classified. Males are positive; females negative. This is nature, and by this very general law of relation of the sexes, much, that is now considered inexplicable by many, may be satisfactorily explained.

Many males are negatively electrified, and it is found by experiment that such have this power or faculty of perceiving subterranean springs: &c., by sensation, and that generally any one who is a good biologic, mesmeric or "spirit-rapping" medium, is a good Bletonist.

Living (not deep) water, silver, iron and the like, being relatively positively electrically to such persons, the rod in their hands, when immediately over any of these substances, points in a direct line to it, and thereby indicates its locality.

In the hands of those who are positively electrified the rod is repelled; which is also in perfect accordance with the well-known electric law, that *likes* repel each other.

It has also been ascertained, that the physiological changes that are constantly going on in our bodies, change temporarily, if not sometimes permanently, their electric state from negative to positive and the opposite, and hence the well-known fact that, not at all times, in the same person's hands, will the rod operate; a circumstance which, probably, more than any other, has led more to believe the whole thing to be a humbug, but which, if the above suggestion has any weight, must obviously be expected to occur.

The rule by which the depth of water is ascertained, is to measure from the point where the rod begins to bend *toward*, to where it points directly to the water perpendicularly. This will give the depth, nearly, and it will be perceived that the sphere of attraction begins at about an angle of 45°. It seems hardly necessary to point out the value of this science to the agriculturist and others. By it much money and time may be saved, and land otherwise comparatively worthless, rendered immensely valuable.

Barton, Vt.

For the New England Farmer.

CANKER WORMS.

As a subscriber to your valued journal, from its early commencement until the present time, may I be permitted to avail myself of a small space in your columns, offering a few remarks in reference to that pest of the ruralist and the farmer, in the "Span or Canker Worm?" Another of their annual devastations has just been completed, and in many places the fair promises of spring have been wholly destroyed by their ravenous besiegings. Indeed, in some sections in our vicinity, they appear to have come forward in increased numbers, and, like

"Giants refreshed with wine,"

have carried perfected destruction wheresoever they have gathered and assailed. Many years since, I believe these depredators were not known among us. And although many able treatises have of late been written on the habits of this voracious insect, accompanied with cautions as to their increase; and although various plans have been suggested for their extirpation, yet, we believe nothing has as yet been effected, accomplish-

ing fully the end desired. The process of tarring we believe has performed all it promised to, when faithfully continued. Yet, where there are many trees, this process is peculiarly laborious, and disagreeable. And accompanied as it is, with the *drying* rapidity of the tar, (although thinned with oil) and the injury it oft inflicts on trees, one would think it, by no means, the best resort that the ingenuity of man can reach to effect the object desired.

Girdles of oil cups, tufts of cotton and clipped straw, with various other imbecilities, have been used, and yet with no beneficial results, as the numberless burned orchards in our vicinity, bear ample testimony to.

At a period when societies are formed, to encourage the production of fruits and flowers—when premiums are liberally offered for the best exhibitions of *fruit, vegetable or grain*, and horticultural societies reward generously for the largest cherry or pumpkin—one would think a little of their munificent encouragement might, (profitably to mankind,) be diverted and appropriated to him who could rescue whole orchards from destruction; instead of showering all their encouragements on the one who could grow the biggest apple or tomato in the country.

But really Messrs. Editors,—seriously and religiously, I think the subject is worthy of, and demands better attention than has yet been given to it. For, of a truth, the evil by no means mitigates or diminishes; on the contrary, is most fearfully and disastrously increasing. Surely the subject calls for the keenest investigation, alike of the agriculturist, of agricultural societies, of the farmer, the chemist, the practical or even the unpractical man. For with the ravages of this insect still annually being spread over our beautiful orchards and groves, ought we to sit still, indifferent to the regular augmentation of this affliction, or at once endeavor to devise some means, if possible, to stay and extirpate it where it is! Recently we have had shown us a glass belt, (made in two segments, so as to encircle the tree, and thus arrest the rising of the insects,) invented and patented by Mr. A. EVERETT, of Roxbury, Mass., which we are told promises to be effectually useful. The inventor informed us awhile since, that its use had been adopted with great favor by Dr. THADDEUS WM. HARRIS, our distinguished Entomologist; and we should be glad to hear from our talented and indefatigable friend, the doctor, on this point, or any other that might profitably be availed of, as a curative for the increase and ravages of this devastating insect. Dr. HARRIS, in various articles contributed to your journal and other agricultural periodicals, as also in his able "Treatise on Insects," has given some valuable suggestions, as to the destruction of the "Canker Worm;" but yet none which we think wholly effectual, unless pursued at great cost of time and patience. And this, too, with little beneficial result, should one happen (as is oft the case) to have a "Lazy Bones" for his neighbor, who would quietly sit for a coat of *tar and feathers*, rather than bestir himself, with the "love of his neighbor as himself" in his heart, and lustily "*tar away*," and thus remove a past pernicious example of laziness and indifference, for a goodly lesson of industry, and "of doing as one would be done unto."

Perhaps, Messrs. Editors, some of your numerous contributors or subscribers may afford beneficial and useful hints on this subject. For surely it cannot be that this marauding insect, the "Canker Worm," is indistructible; or that its annual return to us, blasting many of the best hopes of the farmer, is but the embodiment of that worm, which the scripture tells us "never dies."

Anxious to do all in my poor ability to effect this desired object, I would gladly be willing to associate myself with any ten or twenty persons, and offer a premium, not less than 500 dollars, to see if something cannot be effected, to overcome effectually this continued and increasing devastation and evil. Will the agricultural or horticultural societies join hand?

Your friend and admirer,
ROXBURY RUSSET.

HIGH PRICES--EMIGRATION--SUGAR.

We copy below from the *United States Economist*, a valuable commercial journal published and conducted by THOMAS P. KETTEL, at New York. We give the whole article on the subject of Sugar, that the reader may get an idea of the amount imported, and that which is made from beets. Something of the cost of producing sugar on the plantations may be gathered from the letter dated at New Orleans.

Since 1847 the number of immigrants that have arrived has reached 1,750,000 souls, a number more than the whole population of the Kingdom of Hanover, which has an area of 14,276 square miles, and which exports \$5,000,000 per annum, and which is taxed \$6,500,000 per annum. Since the year 1847 a population equal to the whole of that Kingdom, has, with its capital, skill and industry, been poured upon the cities and plains of the United States at a moment when California was sending hither fifty millions of gold per annum, stimulating the production of railroads, and every species of manufacture, giving full employment. It is not to be wondered at that such a host of persons rushing into the United States, seizing upon and vivifying every branch of industry, should not only have caused a production of commodities but have consumed a large supply. The high prices of produce in the past four years have required labor and encouraged enterprise, and the short European crops of the present year have served to send the current of labor into agricultural employments, hence the rising values of Western lands. Immense tracts like those penetrated by the Illinois Central Railroad, are in eager demand, and with the prospect of prolonged political difficulties in Europe, the intrinsic value of the lands is more than doubled. Land which raised 60 bushels of corn at 15 cents per bushel, yielded \$9 per acre and paid for the labor. The same labor now realizes, by the advance in corn to 40 cents, \$24 per acre. The external manifestation of the national prosperity is in the exports from New York, to which point the surplus farm produce tends; and we find that this value is now far in advance of the famine year for produce, irrespective of specie.

It follows that not only the wants of immigrants who create a demand for goods in the double ratio

of greater numbers and improving wealth, must be met, but also those of inhabitants generally. Thus, in 1847, the population of the United States was 20,650,000, it is now 25,000,000, according to the estimates of natural increase; if to this is added 1,500,000 immigrants, the number is 26,500,000 in the Union. If the consumption of goods in 1847 was \$20 per head per annum, and is now \$30 per head per annum, the result would be as follows:

	Population.	Consumption per head.	Value.
1847.....	20,650,000	\$20	\$413,000,000
1854.....	26,500,000	30	795,000,000
Increased.....	5,850,000	\$10	\$58,500,000

The receipts of gold from California have declined to some extent by reason of the enormous losses that have been sustained on goods sent thither last year. As compared with other articles, however, gold now commands the highest price. It has risen within the year more than any other article, since it will command at its place of production, more of other products of industry, than it would at any one time since the discovery of the mines. Goods and produce are lower there than at New York, and as the facilities for gold digging and washing are greater, without any apparent diminution in the yield of the mines, the same amount of labor will give a greater quantity of gold, and that gold will command more commodities. These are elements which promise for the close of the fiscal year 1855 a state of affairs the reverse of that which is now experienced.

SUGAR.

The sugar trade of the world has received in the last ten or fifteen years, a great impulse through the changed commercial policies of our own and other governments. The improved prosperity of the people of England and Europe, as well as of the United States, leading to larger consumption, on the one hand, while the development of the culture of the cane in Louisiana, and the beet sugar in Europe, has tended to enhance the general supply, which again has been checked by the course of the British and French governments in respect to their sugar colonies. The great reduction of the sugar duties of Great Britain has had the effect of increasing the consumption of raw sugar in the British Islands, 50 per cent. The duty on foreign brown sugar in England, which was 60s. per cwt., prior to July, 1846, has been 14s. since July, 1851, and in this year 1854 the duties on raw and refined will be equalized. Before the removal of the prohibitive duty of 60s. in Great Britain, Cuba, in bond, was 19s. 6d. per cwt.; it is now 25s. 6d., the immense consumption raising the price to the producer. The consumption in Great Britain has steadily increased as follows:

	Colonial. Cwt.	Foreign. Cwt.	Total. Cwt.	Duties. £
1842.....	4,325,785	2,189	4,327,974	5,456,413
1853.....	6,152,267	1,033,095	7,185,362	4,051,270

The reduction in price and duty is equal to \$50,000,000 per annum to the sugar consumers, while the enhanced remuneration to the growers is manifest in the increased supply. While the British demand for sugar was thus enhanced, the colonies produced less, and the extra demand from England fell on the markets of the world. In the same period, although the aggregate consumption of sugar on the continent increased, the demand for cane sugar was checked by the extended pro-

duction of beet root sugar, which has reached 150,000 tons per annum. Of this, in the German Customs Union the increase has been from 15,000 to 62,000 tons, forming now one-half of the whole consumption of sugar in the Zollverein. In France a great increase in the production of beet sugar took place under the protective policy of the government, which discriminated in its favor against the cane sugar of the colonies, until the growth became large, and then it reversed its policy, discriminating in favor of cane sugar. Nevertheless, the course of the Provisional government in 1848, towards its colonies, diminished the receipt of colonial cane sugar in France from 120,000 to 60,000 tons. In the United States, the duty up to 1857 was 2½ per cent. per lb. Since then, at 30 per cent. it has averaged about 1 cent per lb., and yields a revenue of \$4,500,000 per annum. Since 1842 the increase in production and importation has been steady as follows:

IMPORT OF SUGAR AND CROP OF LOUISIANA.

	Imports. lbs.		New Orleans.	
	White.	Brown.	Total. lbs.	Crop. lbs.
1848.....	1,028,925	69,534,331	71,532,256	149,000,000
1858.....	1,900,000	504,000,000	501,000,000	321,384,000

There were in operation in Louisiana in the year 1853, 1,481 sugar estates; of which there were worked by steam 943, and by horse power 538. Using the old process by open kettles, 1,428; using the vacuo process, 53. The total value produced was \$126,929,000, more than equal to this year's cotton crop.

The increase in foreign supply is 488,000,000 lbs., and in domestic 182,000,000 lbs. The latter finds an increasing and rapid sale up the Mississippi valley and through the West, some of it coming to New York through canals and lakes. Of the imported sugar, by far the largest proportion is from Cuba, and more than one-half is refined in New York, in 17 establishments which employ 4,500 men on a capital of \$10,000,000, and produce \$20,000,000 worth of refined sugar per annum. It is undoubtedly the case that the use of refined sugar is becoming more general. The refiners, whose business up to 1842 was protected by allowing them a drawback on the refined sugar exported, and which drawback gradually became greater than the duty on the raw sugar, now, in common with all other sugar consumers, demand a repeal of the sugar duty.

Under the supposition that the present duty is an advantage to sugar growers, equal to the amount paid, (1 cent. per lb.,) then the amount paid by all the sugar consumers in the country is \$8,200,000 per annum, of which the government gets \$4,500,000 and the sugar planters \$3,700,000, which would be about \$2,500 to each estate. The sugar planters deny, however, that they make any profit, as follows:

New Orleans, May 9th.

Messrs. Editors—My attention was drawn to the enclosed article in your valuable paper, and I propose to give you my own experience as a sugar planter in a few words, and as the last season was one of unusual production, and my crop larger than usual, I think it is not an unfair selection; and as it is not in my way to inquire into my neighbors' affairs, I cannot pretend to give you *their* experience, still I venture the assurance that very few realize eight per cent. per annum, and many of them are making, in my opinion, more *leeway* than headway.

My plantation, with 100 negroes, cost me.....\$100,000 00
I made 500 hhds. sugar of fair quality, sold at 34 cts. 16,250 00
24,000 gallons molasses, 14 cent..... 3,500 00
\$138,750 00

Paid the merchant's commissions on sale of the crop, 2½ per cent., is.....\$443 75
Freight to the city of N. Orleans, \$1,12½ @ hhd. 750 00
Freight on 700 bbls. Molasses, 7½ cts. @ bbl. 525 00
Overseer's wages..... 1,200 00
Sugar maker..... 300 00
Engineer to superintend my own engineers 250 00
120 bbls. Mess. Pork, at \$14..... 1,680 00
Paid for 700 Molasses bbls., at \$1,50..... 1,050 00
Paid for assistant Cooper to make 500 sugar bbls. 62½..... 312 00
One suit of Jeans and Lindseys for the Negroes, at \$3..... 300 00
Two suits of Summer wear, \$1,50..... 300 00
Shoes for the workers, say two pairs for 70 persons..... 157 00
Purchase of 6 mules to replace others..... 840 00
Taxes..... 342 00
600 bbls. Corn, at 66 cents..... 520 00
Physician's bill for the year..... 250 00
Paid for Plows, Carts, &c..... 295 00
Repairs of Engine, resetting Kettles, Furnaces, &c..... 560 00
Iron, Salt, Hay, &c..... 225 00—\$10,300 75

Deducted from sale of crop, leaving \$9,449 25

Being less than 6 per cent. interest on the investment. In these expenses I do not include my family or house expenses, nor do I take into consideration the loss of some valuable hands—placing the births against the deaths.

The very great increase in the production of sugar affords evidence of far better general results than are here represented, and it is to be remarked that the crop has increased threefold since the duty was reduced from 2½ to 1 cent.

Ladies' Department.

ERRORS IN BREAD-MAKING.

SOFT BREAD.

"What is the reason," I am asked, "that soft bread is so much used?" Many ignorant persons prefer it; it can be swallowed without much mastication, and the labor of kneading is much abridged. Bread, to be good, requires much kneading, and baking until the crust is well-browned.

MEDICAL TESTIMONY.

Medical men have had their attention drawn to this subject, (the use of alkalies in bread-making,) and many efforts have been made to discover antidotes, and to prevent the ill effects of alkaline compounds; and although medical men disagree on many points that come within their province, yet on this point they are nearly unanimous as to the cause, the effect, and the remedy. Some of the effects of the long-continued use of alkaline compounds, are, difficulty of breathing after motion, weariness, heaviness, gums apt to bleed on the slightest touch, fetid breath; and "dissections of such cases have always shown the blood in a very dissolved state." The remedy is abstinence from alkaline compounds, with a diet of fresh vegetable or wholesome farinacea.

INDIAN CORN,

Is a noble grain, a rich boon, nicely covered up and presented to the human family in a clean condition; no grain more so. The meal of this grain, so far as I have observed, is ground too fine, so that when it is cooked it has a pasty consistence. Corn ought to be always coarsely ground. It is naturally more friable than wheat,

and in this respect it has the advantage over wheat. This friability is a valuable mechanical property, and should never be injured by grinding or cooking. A good mechanical condition is an indispensable requisite to easy digestion; therefore, friability ought to be stamped on every dish, and marked on every loaf and cake. All doughy, glutinous and pasty bread and puddings should be avoided; they do not become the tables of an intelligent and cultivated people; the time and fuel expended in preparing doughy bread, and pasty puddings, is worse than a dead loss.

MILK IN BREAD.

I have more objections than one to milk in bread, but the most serious is, that persons of advanced age, who are in the daily use of milk-made bread, will be exposed to suffer from an over supply of osseous or bony matter, and particularly so if their kidneys be affected. Bread should always be made with water, and when so made, it is suitable for the aged and the young, the sick and the well. And as for sour milk, a microscopic view would, I presume, present additional arguments against its use.—*Water-Cure Journal.*

TO CRYSTALLIZE FLOWERS.

The experiment is simple and can be tried without difficulty. Dissolve eighteen ounces of pure alum in a quart of soft spring water, (observing proportion for a greater or less quantity), by boiling it gently in a close tinned vessel, over a moderate fire, keeping it stirred with a wooden spatula, until the solution is complete. When the liquor is *almost* cold, suspend the subject to be crystallized, by means of a small thread or twine, from a lath or small stick laid horizontally across the aperture of a deep glass or earthen jar as being best adapted for the purpose, into which the solution must be poured. The respective articles should remain in the solution twenty-four hours; when they are taken out, they are to be carefully suspended in the shade until perfectly dry. When the subjects to be crystallized are put into the solution while it is quite cold, the crystals are apt to be formed too large; on the other hand, should it be too hot, the crystals will be small in proportion. The best temperature is about 95 deg. of Fahrenheit's thermometer. Among vegetable specimens that may be operated on are the moss rose of the gardens, ears of corn, especially millet-seed, and the bearded wheat, berries of the holly, fruit of the slow-bush, the hyacinth, pink, furze-blossoms, ranunculus, garden daisy, and a great variety of others; in fact, there are few subjects in the vegetable world that are not eligible to this mode of preservation. The fitness of the solution for the purpose may be ascertained by putting a drop of it on a slip of glass, and seeing if it crystallizes as it cools, if so, the solution is sufficiently strong. Then twist around a sprig of plant, a cinder, or wire ornament of any kind, some cotton, or still better, some worsted. After being immersed as already directed, the surface of the whole will be found covered with beautiful crystallizations.

AN OLD SAYING.—An old writer says that when cannons were introduced as negotiators, the canons of the church were useless—that the world was governed first by *nitrum* and then by *nitrum*—first by St. Peter and then by Salt Petre.

THE BOSTON AND WORCESTER EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility.
2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop.
3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free leasens, rendering the use of these instruments, as pulverizers, quite unnecessary.
4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1863.

Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime.—“DeBurg’s No. 1.”

Poudrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1864.

Ground Plaster,

FOR SALE, at White’s Mills, HAYVERHILL, Mass. Apply to JAMES D. WHITE.

Every Farmer who desires to renovate poor pastures, improve his mowing, increase and improve his crops of corn and potatoes, should give this article a full trial; it is a great addition to any compost heap.

Fine clover usually follows the sowing of plaster.

Jan. 28, 1864.

tt

Cranberry Plants.

BELL, or Egg shaped Variety—commonly raised in New England, and no doubt is the best variety for cultivation—they are hardy and prolific—sometimes produce over 250 bushels of score, after 2 years, and needs but little cultivation. Circulars relating to culture and price will be forwarded to applicants.

F. TROWBRIDGE,

New Haven, Conn

Feb. 18, 1864.

tt

Improved Church Vanes, ALL COPPER,

MANUFACTURED BY

MESSRS. J. & C. HOWARD,

WEST BRIDGWATER, MASS.,

MAY be purchased at the Quincy Hall Agricultural Warehouse
South Market Street, Boston.

July 1, 1864.

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EDWARD HARRISON'S
PATENT GRIST MILL

Received the highest premium at the World's Fair; and more than two hundred and fifty of them have been sold within two years. The stones are French Burr; the frames and hoppers, cast iron; and the spindles, cast steel. They will work both for flouring and on all kinds of grain, and will keep in repair longer than any other mill. Having just completed my new buildings, for manufacturing and running them, I am now prepared to supply all orders for all the sizes, from twenty inches to four feet diameter, including a superior farm and plantation mill, which will grind corn in the best manner, by horse power, or even by hand. Public attention is invited to this small mill in particular. Descriptive circulars, with cuts, sent to post-paid applications.

EDWARD HARRISON,
Sole manufacturer, and proprietor of the Patent.
New Haven, Ct

April 29, 1854.

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QUINCY HOUSE.

BY ALANSON LONG,

KEPT ON STRICTLY TEMPERANCE PRINCIPLES

No. 1 BRATTLE SQUARE,

Opposite Brattle St. Church,
Nov. 1

BOSTON.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLD and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

Terms, \$1.00 per annum in advance.

All subscriptions to commence with the volume, Jan. 1.

The FARMER is devoted *exclusively* to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

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NEW ENGLAND FARMER, (WEEKLY,)

An Independent Agricultural Family Newspaper.

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All orders and letters should be addressed, *post-paid*.

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QUINCY HALL, SOUTH MARKET STREET, BOSTON.

POSTAGE.—The postage on the New England Farmer, monthly, is 1½ cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Super-Phosphate of Lime.

THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "O. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

Premium Swine.



Suffolks from Morton's Piggery, have taken the highest premiums, as may be seen by the published transactions of the Massachusetts State and Norfolk County Agricultural Societies. The stock now for sale is large and well assorted, embracing the purest and best blood of this unequalled breed. Pigs, properly paired for breeding, \$30 a pair. For prices of Boars and Sows, see catalogue, which will be sent by mail on application. Animals purchased forwarded by Express or vessel from Boston, with pedigree. Orders must be accompanied by a remittance.

JAMES MORTON, West Needham, or
G. H. P. FLAGG, Boston, Mass.

June 10, 1853.

4w

Farm for Sale,



Situated in HOLLISTON, one mile from the depot, on the Milford Branch Railroad, and centre of the town; on the main road from Holliston to Hopkinton, and near a school. Said farm contains eleven acres of excellent land, and is well supplied with Apple, Pear, Peach, Cherry and Plum trees, in bearing order; also Currants, &c. Two excellent wells of water. The buildings consist of a good two-story House, 28x40 with a L, wood-house, Shoe-maker's shop and a barn 34x41 and collar under the same, in good repair.

For particulars inquire of ADDISON WARFIELD, on the premises.
July 1, 1854.

*Ed. Hunt
J. B. Hunt*



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, AUGUST, 1854.

NO. 8.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, Editor.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH } EDITORS.

CALENDAR FOR AUGUST.

The fields are all alive with sultry noise
Of labor's sounds, and insect's busy joys ;
The reapers o'er their glittering sickles stoop,
Starting full oft the partridge covers up ;
Some o'er the nestling scythes go bending on ;
And shockers follow where their tolls have gone,
Heaping the swaths that rustle in the sun.

CLARE'S Shepherd's Calendar.

AUGUST, with us, is not the principal harvest month. The wheat and rye crops are gathered in July, in New England, and we believe in all the wheat-growing States. But the oats, barley, peas and beans, and some early fruits and vegetables, are harvested in August. The late meadow grass is also cut in this month, which closes up the hay-harvest, with the exception of the "after-math," as the English call it, or, as we usually term it, the "second crop."

The "Mirror of the Months" likens August to "that brief, but perhaps best period of human life, when the promises of youth are either fulfilled or forgotten, and the fears and forethought, connected with decline have not yet grown strong enough to make themselves felt; and consequently when we have nothing to do but look around us, and be happy." For it is in this month that the year, "like a man at forty, has turned the corner of its existence; but, like him, it may still fancy itself young, because it does not feel itself getting old. And perhaps there is no period like this, for encouraging and bringing to perfection that habit of tranquil enjoyment, in which all true happiness must mainly consist; with *pleasure* it has indeed little to do; but with *happiness* it is everything."

The great pressure of the season is over, and that is what the amiable writer whom we have quoted means, when he says "we have nothing to

do but look around us and be happy." For in haying and early harvest, every body is in motion—every available hand is pressed into the service. "Hay-days" do not continue long, and they must be briskly improved. But now that the grass and rye and wheat-fields are smoothly shorn and their contents heaped in generous profusion in the bays and on the scaffolds of the barn, the farmer breathes freer, and looks upon the labors of his hands with a pride and satisfaction never equalled, unless, perhaps at the close of the great Indian Corn Harvest.

But we gather our ample harvests in a more matter-of-fact manner than did our ancestors.—We make no demonstrations of gratitude or joy. "They crowned the wheat sheaves with flowers, they sung, they shouted, they danced, they invited each other, or met to feast, as at Christmas, in the halls of rich houses; and what was a very amiable custom, and wise beyond the commoner wisdom that may seem to lie on the top of it, every one that had been concerned, man, woman and child, received a little present—ribbons, laces, or sweetmeats." But we are grateful, notwithstanding, and read the newspapers and calculate, more than did our ancestors.

But we must not linger too long in this pleasant field. Changes are taking place—the flowers are sensibly diminished, while later and hardier kinds appear, especially in waste places. Towards the end of the month the beech tree turns yellow, or the maple into crimson and purple, the first symptom of approaching autumn. The birds having reared their broods, are now in social companies feeding on the perfected seeds, or those who find more congenial aliment in insect life are congregating in larger companies, and make themselves busy in preparations for their annual migration south. The "swallow people" have either gone, or have gathered upon the roof of the barn, the old apple tree, the top rail of the fence, or the

cornspires, where they discuss in cheerful mood the necessary preparations for their departure.

But mere homely cares press, and we must attend to some of the duties which particularly claim attention in August.

SAVING GRASS SEEDS.—Sufficient attention is not given to the saving of seeds. It is not a difficult matter, even without the aid of a machine for the purpose, to gather all the clover seeds that may be wanted on a farm of common size. It may be taken from the second crop, and threshed and cleaned up as are other seeds. So with herd's grass—leave a square of a few rods where the heads are large, and where no weeds are intermixed with the grass, and at the proper time cut, thresh and clean it up. Every dollar saved in this and various other ways by the farmer, will give his cash account a favorable aspect at the end of the year. Indeed, a little pains will give the small farmer all the seeds he requires, of every kind, so that he need not expend a shilling in money for them. Also, carefully preserve all other seeds which will be needed for another year's use.

RYE AMONG CORN.—Those persons wishing to follow a crop of corn with rye, will find it a pleasant way to sow the seed on a flat hoeing and harrow both ways between the rows with a suitable implement, or rake in, which may be done rapidly.

RUTA BAGAS.—Give them a dressing of ashes or superphosphate of lime just before hoeing, leaving a row occasionally without the fertilizer, that you may note the difference between them.

BUDDING.—Most persons now understand the process—we merely remind them that the time has come to do it.

DITCHING AND MEADOW MUD.—August usually offers the most favorable season for ditching swamp lands, and for throwing out a supply of meadow mud. There is scarcely a farm but needs ditching somewhere. We can refer the reader to various tracts of land where their owners have been operating in a greater or less degree for ten years, in order to bring low places into the production of good grasses natural to upland. But they have all failed up to this time, though they have toiled annually to accomplish the desired object. The hands have been active, while not a ray of scientific skill has guided their operations. The perusal of a single chapter of a good work on *Draining* would show them how futile are such efforts against the laws of nature.

Those who have not used meadow muck will be surprised to find what a rapacious absorbent it is. If thrown out now and left where it may drain, it will become quite light in the course of three or four months, and then may be hauled in the winter at a trifling expense.

LAYING LANDS TO GRASS.—August, too, is a

most favorable season for this operation. This practice is now, generally, well understood. On lands naturally too moist for hoed crops, it is a pleasant and profitable way of bringing it back to yield good grass crops, to plow deeply, manure well, pulverize finely, and seed liberally; and if well done in this month the young crop will gain sufficient strength to resist the freezing of winter.

THE WHEAT CROP.—There is really no necessity for the farmer to pay out much cash for flour. The winter blue-stem and some other kinds of wheat will flourish finely on most of our New England hills, provided it be properly put in, in August or September, the ground liberally enriched and limed. An acre will ordinarily be sufficient to supply a family of eight or ten persons. Make an experiment on a fourth of an acre, you that doubt.

These are only a portion of the things which it is particularly proper to attend to in the fervid month of August.

GREEN CORN PUDDING.

This is one of the numerous rural luxuries which the farmer has always the power to obtain at small expense. The following is the recipe for making it:—

Take of green corn, full in the milk, twelve ears, and grate it. To this add one quart of sweet milk, one-fourth of a pound of fresh butter, four eggs, well beaten, pepper and salt as much as may be deemed necessary; stir the ingredients well together, and bake in a buttered dish. Some add to the other ingredients a quarter of a pound of fine sugar, and eat with sauce. It is an excellent dish, cold or warm, with meat or sauce; but epicures of the most "exquisite taste" declare for it, we believe, and with the first service.

As green corn, particularly Prof. MAPES' new kind of sweet corn, may be kept the year round, this excellent dish may be as common on the table of the farmer as meat or bread.

ROTATION OF CROPS.

The difference of soils, location and other circumstances of different farms, renders the establishing a uniform series of crops in all cases impossible. In some places spring wheat must be raised instead of winter wheat. In others, rye must be made a substitute for wheat. A good course in some instances is:

- | | |
|------|---------------------------|
| | 1 year, Corn or potatoes. |
| | 2 " Wheat or rye. |
| | 3 " Clover. |
| Or 1 | " Wheat. |
| 2 | " Corn, potatoes. |
| 3 | " Wheat, rye. |
| 4 | " Clover. |

Or corn and potatoes may be followed by barley or peas, and then wheat. Before the crop of corn in all cases manure plentifully. Manure may also be applied to great advantage when the field is stocked to grass.

ABOUT BEES.

MR. EDITOR:—Some two or three years ago, an acquaintance of mine gave me a receipt which he claimed as infallible against the bee moth or miller. If it is of any use, your readers "and the rest of mankind" are welcome to the knowledge of it. I have not tested it myself, partly because I could not get the sweet flag root in my vicinity, and partly because I do not suffer as yet, from the moth. I have but a small stock of bees, and I endeavor to keep my hives populous; then, as soon as the weather will admit, I raise the hive about a half inch or more from the bottom board, by pins in the corners. The miller then has a poor chance to deposit her eggs where the hive is full of bees. Besides this, I keep a good lookout to catch and kill all the marauders I can.

A friend residing in Kingston, Tenn., who keeps large numbers of bees, and has excellent success, pursues a similar course. A pair or two of wrens have for several years much assisted him, in building their nests close by. Especially when providing for their young would they visit the hives at all hours of the day, for any chance worm, or cast out larvae of the bees.

But to the receipt, which follows: Take dried sweet flag, pulverize it very fine, make it into a dough, well working it with strong spirits of turpentine, then dry it in the sun or by a gentle heat. When well dried pulverize it again and again, make it into dough with spirits of turpentine, this time adding a portion of common salt. Dry it and it is ready for use, and may be kept on hand. Strew it on the bottom board and around the hive. The miller, my informant says, will select it for depositing her eggs, where they will stay deposited as the mixture very soon destroys their vitality. It is inoffensive to the bees, but its power over life in the embryo is so great that even hens and other eggs are made worthless for hatching by wrapping a coating of it around them for a short time.

T. E. WETMORE.

North Cannon, Michigan, June 26, 1854.

Maine Farmer.

THE MILKMAN'S CONVENTION,

AT MANCHESTER, N. H.

Pursuant to the notice, a meeting of the persons engaged in raising and selling milk was held at the City Hotel, July 3d, at 10 o'clock, A. M.

The Chairman stated the object of the meeting to be, to take into consideration the expediency of raising on the price of milk.

Mr. J. Plumer, of Goffstown, said,

That he usually kept 20 cows and sold his milk in Manchester, at 4 cents per qt., but at the price of cows, keeping, &c., he had come to the conclusion to abandon the business if the price was not increased.

Mr. Stevens, of Goffstown, said,

That he kept 20 cows and sold his milk in Manchester. He said when cows could be bought for \$25, a piece, hay 10 or 12 dollars a ton, and corn four shillings a bushel, farmers could make money in raising and carry it to market for 4 cents a qt.; but now cows had advanced to 40 and 45 dollars, hay gone up to 20 and 25 a ton, corn a dollar and a quarter a bushel, he could not make it a paying business, and should stop if the price did not rise.

Mr. Swallow, of Nashua, said,

That he carried the milk of 30 cows to the city of Nashua, and had sold it for 4 cents per qt., but he said he preferred to raise pork than sell his milk for that price.

Mr. H. R. French, of Bedford, said,

That he had tried an experiment in taking the relative value of selling his milk and making it into butter, the result of which was that the latter gave the most profit.

Mr. Hall, of Bedford, said,

That he thought that it would be better for him to sell a portion of his hay and grain, than to raise milk at the present price.

Mr. D. H. Barr, of Bedford, said,

That his cows (and he had tried to get the best,) would not average more than five qts., during the year, and that no man could afford to sell milk at his door short of 3 cts. for 12 months, or 4 cents 6 months.

Mr. French, of Bedford, said,

That last fall he bought 6 cows, also bought his grain and hay, and kept an account of product, which cost him 4 cents per qt., allowing for shrinkage in his cows.

Mr. Shattuck said that the people in the city of Concord had paid 5 cents per quart for milk since last October, and that he had been informed that it was contemplated to advance to 6 cents per quart, this fall; he was certain that for himself it would be better to turn his attention to making butter and raising pork, than to sell his milk at the door for 2½ and 3½, 6 months, as he had done.

Further remarks were made by Messrs. Jones, Huse, Cross, and others. After which it was voted without one dissenting voice, that the price of milk be raised to 3 cts. per qt. for 6 months, and 4 for 6 months, to commence Monday, July 10, 1854.

Great harmony of action prevailed through the deliberations.

B. SHATTUCK, Chairman.

F. R. FRENCH, Secretary.

Nashua Gazette.

For the New England Farmer.

PACKING BUTTER.

MR. EDITOR:—The communication of N., of Randolph, Vt., reminds me of my neglect to answer a private note. I will tell him what I think, and you can publish it, if you think it worth the while:

Lump butter packed in strong brine, will keep as well as when packed in tubs, in the usual way. But "butter packed in tubs, solid, as is usually done," does not keep well:

If kept long in brine, it will suffer materially in color upon the surface, and if put in packages of more than one or two tiers of lumps, they would get badly jamed before reaching market, and in either case would have to be re-worked before offered for sale, or suffer materially in price. N. would not like to trust commission merchants to "work over" his butter; nor would he send his dairy maid; for though the visit might please her, she would prefer to do the work at home in her own nice, clean sanctum.

In very cool weather, lump butter may be sent to Boston, when new and sweet; but I do not think would bring more than if solid packed in tubs, deducting the expense of extra freight and

care. For new made, or perfectly sweet butter, solid, packed in tubs, may be made into "lumps," after it reaches market, by the use of butter moulds, without being re-worked. And I think that four-fifths of all the lump butter sold in Boston and other large northern cities, is so made from tub butter.

Groton, July 3, 1854.

W.

FEEDING ANIMALS.

THE FOOD MUST SUPPLY THE SALINE AND EARTHY MATTERS CONTAINED IN AND DAILY REJECTED BY THE BODY.

The full-grown animal daily rejects a quantity of saline and earthy matter withdrawn from its wasting tissues; while the growing animal appropriates also every day an additional portion in the formation of its increasing parts. The food must yield all this, or the functions will be imperfectly performed.

1. *The flesh, the blood, and the other fluids* of the body contain much saline matter of various kinds—sulphates, muriates, phosphates, and other saline compounds of potash, soda, lime, and magnesia. The dry muscle and blood of the ox leave, when burned, about $\frac{4}{5}$ per cent. of saline matter or ash. The composition of this saline matter is represented in the following:—

	Blood.	Flesh.
Phosphate of soda, (tribasic,) - -	16.77	45.10
Chloride of sodium, (common salt,) -	59.34	
Chloride of potassium, - -	6.12	45.94
Sulphate of soda, - -	3.85	tracc.
Phosphate of magnesia, - -	4.19	
Oxide, with a little phosphate of iron, -	8.28	5.84
Sulphate of lime, gypsum, and loss -	1.45	
	100	97.88

All these saline substances have their special functions to perform in the animal economy, and of each of them an undetermined quantity daily escapes from the body in the perspiration, in the urine, or in the solid excretions. This quantity, therefore, must be daily restored by the food.

2. It is interesting to remark how the mineral matter differs in kind in the different parts of the body. Thus, blood contains much soda and little potash—the former in the serum, the latter in the globules—the cartilages much soda and no potash, and the muscles much potash and little soda. So phosphate of lime is the earth of bones, and phosphate of magnesia the earth of the muscles. So also the presence of fluorine characterizes the bones and teeth, and that of silica, the horny parts, hairs and feathers of animals—while an abundance of iron distinguishes the blood and the hair.

The distinction now noticed between the blood and the muscle is not brought clearly out by the analysis above given of the comparative composition of the saline matter of each. It is seen more clearly in the following comparison:—

	The mineral matter or ash of ox blood contains, per cent.	of ox flesh contains, per cent.
Common salt, - -	47 to 51	—
Chloride of potassium, - -	—	10
Potash, - -	7 - 8	36
Soda, - -	12 - 14	—
Phosphoric acid - -	3 - 7	36
Oxide of iron, - -	7 - 10	1

From the blood, therefore, as a common store-house, each part obtains, by a kind of selection, the mineral matter which it especially requires.

It has not yet been accurately determined by experiment how much saline matter must necessarily be excreted every day from the body of a healthy man, or in what proportions the different inorganic substances are present in what is excreted; but it is satisfactorily ascertained, that without a certain *sufficient* supply of all of them, the animal will languish and decay, even though carbon and nitrogen, in the form of starch and gluten, be abundantly given to it. It is a wise and beautiful provision of nature, therefore, that plants are so organized as to refuse to grow in a soil from which they cannot readily obtain an adequate supply of soluble inorganic food,—since that saline matter, which ministers first to their own wants, is afterwards surrendered by them to the animals they are destined to feed.

Thus, the dead earth and the living animal are but parts of the same system,—links in the same endless chain of natural existences. The plant is the connecting bond by which they are tied together on the one hand,—the decaying animal matter, which returns to the soil, connects them on the other.

3. *The bones of the animal* are supplied with their mineral matter from the same original source.—the vegetable on which they live. The dried bones of the cow contain 55 per cent. of phosphate of lime with a little phosphate of magnesia, those of the sheep 70, of the horse 67, of the calf 54, and of the pig 52 lbs. of these phosphates in every hundred of dry bone. All this must come from the vegetable food. Of this bone-earth, also, a portion—varying in quantity with the health, the food, and the age of the animal—is every day rejected. The food, therefore, must contain a daily supply, or that which passes off will be taken from the substance of the living bones, and the animal will become feeble.

The importance of this bone-earth will be more apparent if we consider,—*First*, that in animals the bones form not only a very important but a very large part of their bodies. The body of a full-grown man contains 9 to 12 lbs. of clean dry bone, yielding from 6 to 8 lbs. of bone-earth. In the horse and sheep the fresh moist bone has been estimated at one-eighth of the live, or in the sheep to one-fifth of the dead weight, and to one-third of the weight of the flesh. *Second*, that in a growing sheep the increase of bone-earth amounts to about 3 per cent. of the whole increase in the live weight. And—*Third*, that every hundred pounds weight indicates 5 or 6 of phosphate of lime.

It is kindly provided by nature, therefore, that a certain proportion of this ingredient of bones is always associated with the gluten of plants in its various forms,—with the fibrin of animal muscle and with the curd of milk. Hence man, from his mixed food, and animals, from the vegetables on which they live, are enabled, along with the nitrogen they require, to extract also a sufficiency of bone-earth to maintain their bodies in a healthy condition.

THE FOOD MUST SUPPLY THE WASTE OR INCREASE OF FAT IN ANIMALS.

Every one knows that in some animals there is much more fat than in others, but in all a certain portion exists, more or less intermingled with the

muscular and other parts of the body.* This fat is subject to waste, as the muscles are, and therefore must be restored by the food. All the vegetable substances usually cultivated on our farms contain, as we have seen, a notable quantity of fatty matter, which seems to be intended by nature to replace that which disappears naturally from the body.

A full-grown animal, in which the fat may be regarded as in a stationary condition, requires no more fat in its food than is necessary to restore the natural loss. In such animal the quantity of fatty matter found in the excretions is sensibly equal to that which is contained in the food.

But to a growing animal, and especially to one which is *fattening*, the supply of fatty matter in the food must be greater than to one in which no increase of fat takes place. It is indeed held, that, in the absence of oil in the food, an animal may convert a portion of the starch of its food into fat,—may become fat while living upon vegetable food in which no large proportion of fatty matter is known to exist. And it can hardly be doubted, I think, that the organs of the living animal are endowed with this power of forming in a case of emergency—that is, when it does not exist ready formed in the food—as much fatty matter as is necessary to oil the machinery, so to speak, of its body. But the natural source of the fat is the oil contained in the food it eats, and an animal, if inclined to *fatten at all*, will always do so most readily when it lives upon food in which oil or fat bounds.

It does not however follow, because fat abounds in the food, that the animal should become fatter,—since if starch be deficient in the food, the fat containing no nitrogen, may be decomposed and worked up for what may be called the purposes of respiration. This working up of the fat, already existing in the body, is one cause of the rapid emaciation and falling away of fat animals when the usual supply of food is lessened, or for a time altogether withheld. The fat is indeed considered by some as nothing more than a store laid up by nature in a time of plenty to meet the wants of respiration when a season of scarcity arrives,—that a fat animal is like a steam-frigate heavily laden with fuel, which it burns away during its voyage for the purpose of keeping up the steam.

It is by reference to this supposed purpose of the fat of the body, and to the possibility of using it up for the purposes of respiration, that the benefits of repose, of shelter, of moderate warmth, of the absence of light, and even of a state of torpor, in conducing to the more speedy fattening of cattle and sheep, are explained. Exercise causes more frequent respirations, and hence a greater waste of that part of the food which should be laid on in the form of fat. Cold also has the same effect, since more heat must be produced in the interior of the animal—in other words, more frequent respiration must take place, in order to make up for the greater loss of heat by exposure to the external air.

Thus, as was stated at the commencement of the present chapter, a study of the nature and functions of the food of animals throws additional light

* At Port Phillip, in the boiling-houses, a Merino sheep of 55 lbs. gives 20 lbs. of tallow, and of all weight above 55 lbs. four-fifths are tallow.

upon the nature also and final uses of the food of plants. It even teaches us what to look for in the soil—what a fertile soil *must* contain that it may grow nourishing food—what we must add to the soil when chemical analysis fails to detect its actual presence, or when the food it produces is unable to supply all that the animal requires.

SPECIAL WASTE IN THE PERSPIRATION OF ANIMALS, AND IMPORTANCE OF THIS FUNCTION.

Animals perspire that they may live, and this function is as necessary to a healthy life as either breathing or digestion. The skin, like the lungs, gives off carbonic acid and absorbs oxygen. But it differs from the lungs in giving off a much larger bulk of the former gas than it absorbs of the latter. The quantity of carbonic acid which escapes varies with circumstances. It is sometimes equal to a thirtieth, and sometimes amounts only to a ninetieth part of that which is thrown off from the lungs. But exercise and hard labor increase the evolution of carbon from the skin, as it does from the lungs. In motion, the human body gives off nearly three times as much as when it is at rest; while from a horse, when put to the trot, the carbonic acid of the skin augments as much as an hundred and seventy times. (GERLACH.)

Water is also given off from the skin as from the lungs, and every one knows that fat exudes from its pores and lubricates the surface of the body. The salt taste of the perspiration is an equally familiar proof that a portion, at least, of the saline matter derived from the waste and change of materials in the body escapes through this channel.

Nitrogen also escapes from the skin. The quantity of nitrogen in the food is a third or a fourth greater than that contained in the solid and liquid excretions. (BARRAL.) This third or fourth, therefore, is supposed to be given off by the organs of perspiration, the lungs and the skin. A cow or a horse is reckoned to exhale by the skin and lungs about 400 grains of nitrogen daily: a man, perhaps, 100; and a sheep or pig 8 grains. (BOUSSINGAULT.)

The functions of the skin, therefore, are very important; and thus, in the practical feeding of animals, a healthy and clean condition of the skin must contribute not only to healthy growth, but to a profitable employment of vegetable produce in rearing, maintaining, and fattening them.

Johnston's Ag. Chemistry and Geology.

For the New England Farmer.

HORSERADISH.

MR. EDITOR:—I saw an inquiry in your paper in relation to the cultivation of horseradish, and can tell the inquirer how it ought to be done. Take a piece of moist meadow land and ridge it up in ridges three feet apart, one way; then take horseradish roots, from one-fourth to three-fourths of an inch in diameter, and cut them into pieces one inch in length, and plant one piece in a place, two feet apart on the top of the ridge, covering them about an inch deep, and cultivate as you do for potatoes. After the severe frosts in the fall, pull the roots and keep off the small fibres, and pack the remainder closely in the collar and cover with turf to prevent the roots from drying.

Worcester, 1854.

B. H. FRANKLIN.

ON MAKING HAY.

MR. EDITOR:—As we are about to engage in the process of hay-making, an important business in this latitude, a few words on the subject of curing hay may not be unacceptable.

There is, in my opinion, a very great mistake existing in regard to this matter. It is an old adage, "make hay while the sun shines," and many seem to think the more sun they can get upon their hay the better; here is the mistake to which I allude. I am confident that a large portion of the hay in this country is lost by this process of over-drying in the sun. The influence of the sun is partly that of distillation. It has the power to expel, not only the watery elements contained in plants, but the real life-sustaining substance of the plant itself, which goes to form the fat, flesh, wool and bones of all ruminating animals.

It is asserted by the distiller of plants, that to procure the most oil, they must not be dried in the sun, as it not only lessens the quantity of oil, but also diminishes the flavor.

Now, hay may be exposed to the action of the sun's rays, until there remains little but the woody fibre, and there is no more nourishment in it than there is in so many tons of pine rails. Thus, from one-tenth to four-fifths of the nutritious part of hay is lost in the process of hay-making; in what might be more properly called a process of distillation. I have reason to believe that in the State of Vermont, alone, there was lost during the last season, in this way, more than five hundred thousand dollars worth of hay, which, if it had been wisely retained, might have gone to nourish many flocks and herds. A great part was resolved again into its constituent elements, and passed away in a gaseous form.

For example, we will suppose that Farmer A. cuts ten acres of grass, that would weigh 25 tons green; he reduces that by judicious curing in the sun and cock to 15 tons and puts it under shelter, where, by the continued process of making, it is farther reduced, and when in the highest stage of preservation, the whole quantity of his crop of fragrant hay weighs 11 tons. Farmer B. also cuts from his 10 acres the same quality and quantity of A. But under B's rigid process of "drying and curing," as he calls it, reduces his 25 tons of grass in the field to eight tons; after housing, it shrinks one ton more. Now for the result.

Farmer A's mow of hay to the amount of 11 tons, is richly worth \$10 $\frac{1}{2}$ ton.....	\$110
And farmer B's 7 tons, valued at \$5 $\frac{1}{2}$ ton.....	65
Leaving farmer A. nett over B.....	\$44

To make this arrangement more plain. In the above estimate, I have valued A's crop of hay at \$2,00 per ton, or twenty per cent. more than B's. We will now subtract that which is of no value from each number of acres mowed. That is:—

A's mow.....11 tons.	B's mow.....7 tons.
Woody fibre.....3 "	Woody fibre.....3 "
Solid nutriment.....8 "	Solid nutriment.....4 "

We see that here A. has retained, in the curing process, twice as much as B., of the fat and flesh-forming elements; thus you see that the only essential properties contained in the 25 tons of grass may be all extracted in three ways. One

process is by steeping in water, which extracts more rapidly than the second, which is by evaporation, or the influence of warm air. The third, and most profitable method for the American farmer, is by dissolving the hay in the *animal distillery*. By this process of decomposing the aliment in the stomach of animals, and of recomposing it in a new form, and thus preparing it for circulation and nutriment, is the *philosopher's stone* of which I am endeavoring to elucidate.

A majority of hay enters the barn quite too dry, that is, too much of the nutritious qualities of the grass are exhausted in the hay field. One may place his hay quite too rapidly into large bodies and quite too green, and suffer loss by so doing. In the mean time, that hay had been divided and stored in several places a large per cent. of nutriment might have been retained.

When the hay-maker is desirous of stacking or mowing his hay a little too green, he may do so with impunity, by occasionally adding a layer of dry straw or old hay, to absorb the gases which would pass off, if under the influence of the sun. Stacking may sometimes be expedited in this way, and to advantage; for stock will eat the straw or old hay with avidity, which has retained the properties of the green hay, in the straw or old hay, though that may only have been of second quality.

Another good method of securing your hay as green as possible, is to provide several places of storage, so that but a few loads may be stored together the same day. The more slowly the process of collecting the hay together, the richer it will be in quality, if cut in proper time. If the hay is underdone it is a good practice to cast it upon an open scaffold, or remain on the load, to sweat over night. All hay underdone should be pressed as tightly as possible in the mow, but if over cured or ripened, the more solid it is pressed the better.

A stack of hay, to be made properly, should be several days going up, for the double purpose of saving the nutritious qualities and giving it time to settle by degrees.

Grass should be first wilted, and if no dew or water falls on it, put into cocks, and made into hay by degrees. In the time of mowing, if the grass gums the scythe it requires little or no drying before it enters the barn.

Hay may heat in the mow to a certain extent, and stock will eat it freely. When it is liable to over-heat, it must be overhauled, or a square cut out of the centre, which will check the heat by coming in direct contact with the air. A chimney is sometimes formed by setting bundles of straw on one end, one on top of the other, commencing near the bottom of the stack or mow, and ending near the top. Hay, as before stated, when over dried, will never become solid in the mow, and compact hay will go much farther, pound for pound, than hay loose in bulk.

Every stack or mow, divided by a hay-knife, and first cut fed one part, will spend much better, when fed in this fresh state, than that which constantly exposes a large surface to the action of the air.

S. W. JEWETT.

Middlebury, Vt., July 5, 1854.

REMARKS.—We regret that friend JEWETT had not sent us this article a few weeks earlier, that

our hay-makers might have had the full benefit of this season. By reference to the remarks which we have made on this subject he will see that we believe in the doctrines he has laid down in regard to hay-making—indeed, a good portion of our hay is put into the barn on the same day that it is cut, and we have not had a pound of musty hay for years. This is really a matter of great importance to the farmer, and he ought to give it more attention.

For the New England Farmer.

THE WITCH HAZEL TEST.

FRIEND BROWN:—Noticing an inquiry by R. H. H. in your March No., "What dependence can be placed on the use of witch hazel for determining water courses," &c., and some editorial remarks, I am induced to give you some of my experience. Some 55 years ago, my father, after erecting a new set of buildings, wished a well to accommodate the barn, which was on pine plain land. A man in the adjoining town of Harvard, professed ability to designate the situation and depth of springs by means of hazel rods or whale-bone. He was sent for, and came; I watched his operations, and found they would turn and point to the spring, and by going round he would estimate the depth. He said there was no spring nearer than 6 rods to the barn, where he decided water might be found 12 feet from the surface, which he would warrant for \$2. It was paid. I took the hazel rods he used (he had the whalebone, the end impregnated I think he said with quicksilver, and a green hazel say 15 inches long, split half way) and found they would work in my hands as well as his, either of them, but not in another person's present (say 6 or 8 of the family,) I was surprised to see and feel their powerful twisting. The man said "There is not one in 500, in whose hands they will work. You ought to give yourself wholly to this business, it is so rare a favor, and would be an immense saving if generally known and available." Such was my father's confidence that he started two teams to draw stone, and put two men digging early next morning, and strange to tell, by 11 o'clock, they got water, and made grog and drank in the well—commenced stoning and the water rose more than half way to the top, as fast as they could lay the stone. I may add it was a never failing spring.

Another more striking case came to my knowledge in East Williamstown, Vermont. A gentleman with whom I stopped some time, said he had often found springs in that way in many parts of the State. He had occasion for a well in a lot of his own. The rods indicated a powerful spring 15 feet deep, it was in a hard pan, very hard. He dug about 15 feet, and found no water. Got his rods and went down; the rods strikingly indicated the spring to be in the centre, at the very point they had reached. He took the pick-axe struck in, and raised a lump. He saw the water running in a course like a tube, some $\frac{3}{4}$ of an inch in diameter. He took a small piece of moss, and with his finger pressed it into the hole closely, so that the water could not run off, and it boiled up rapidly and steadily, till the well ran over, which it has continued to do ever since! I saw this pow-

erful spring, and the large grass growing, irrigated by its overflowing.

Why the witch hazel, and no other kind of wood, should be attracted by running water,—in some hands and not in others, is a problem that remains to be solved; but that such is the fact, I have not doubted for half a century. BENJAMIN WILLARD.

Lancaster, 1854.

For the New England Farmer.

MULCHING WITH WOOD SHAVINGS.

MR. EDITOR:—Never having seen anything written upon the subject of mulching fruit trees with wood shavings, I venture to suggest to such of your readers as have young orchards, the propriety of trying the experiment.

Having had but two years experience, I am not prepared to say they are better than any other material, but I am free to confess they have thus far surpassed anything I have ever tried.

Having a few fruit trees set on a barren knoll, which, although they had yearly received a liberal mulching with grass, assumed the appearance of premature decay, and in fact had already taken the down hill course, I resolved to try the effect of mulching with shavings. Around each tree I put two barrels of shavings, within a circle of eight feet in diameter, leaving a small space between the shavings and the tree to be filled with fresh earth. To keep the shavings snug, a thin coat of grass was spread over the whole. To fully test the experiment, a part of the trees were treated the same as they formerly had been. After the lapse of one year, (which was last year,) those trees mulched with shavings put out vigorous shoots, and by their dark green foliage could be easily distinguished from the others at a great distance. So well satisfied was I with the result, I last year used upwards of a hundred barrels which have proved equally as beneficial to the trees, while the first I mulched continue to thrive even beyond my expectations.

If any of your readers have used the above named material, I hope they will communicate the fact, and state with what success.

I have found brush from evergreen trees to be an excellent material for mulching young orchards. E. HERSEY.

Hingham, 1854.

For the New England Farmer.

THE OAK PRUNER.

MR. BROWN:—The oak pruner *Stenocorus (Elaphidion) putator* has again made its appearance in great numbers; I have seen some oaks as badly used as they were two years ago, when many were afraid that our oaks were to be totally destroyed. Some of our oaks present a ragged appearance, with numerous dead limbs hanging, that have been sawed off, but not blown down. They work other trees,—such as apple, walnut, maple, &c.—to some extent. The question may be asked, "What can be done to prevent the ravages of these insects?" Dr. Harris suggests—and a wise suggestion it is—that the branches be gathered up and burned, thereby destroying the grub. Let us all act on this advice, and next year we shall not be so much troubled with this nuisance.

J. F. C. H

Newton Centre, July 21st, 1854.

INFLUENCE OF SOILS ON THE COLOR OF FLOWERS.

It is not, perhaps, generally known as it deserves to be that the color of flowers depends, to a considerable extent, upon the character of the soil on which they grow. The splendid and brilliant yellow of the *Hyppoxis* is only seen on close and compact clays, while the *Lupine* is successfully grown only on soils of a sandy or arenaceous description. The marl indicator, or *veronica*, grows only on calcareous lands, or those having a large percentum of lime in their composition. The *talinum*, in Pennsylvania, is never found except in magnesian rocks, where it flourishes with great vigor and luxuriance, though wholly incapable of cultivation in any locality to which magnesia is not common, or in which it does not exist to a greater or less extent. Among the almost countless varieties of plants which beautify the earth, some only vegetate in brine—as the marine varieties found on the margin of the sea; others, on the contrary, are aerial, and like the mistletoe, seem to derive their sole nutriment from the air, while there are others again which flourish only in fresh water, and which are incapable of successful culture in any other situation, like the water-lily, and the wild rice of the West.

There are plants known to the botanist, which are confined exclusively to the soil, and which never rise above the surface—others that can be made to germinate only in stones, and to which common air and moisture are instantaneous death! Such facts appear astonishing, yet the botanist recognizes in them but another manifestation of that Divine Wisdom which regulates the phenomena of life, and scatters beauty and loveliness equally over all the earth. In the cultivation of flowers, therefore, we should endeavor to ascertain the circumstances most favorable to their growth and vigor. The soil has, as we have shown, a strongly modifying and characterizing influence in this department, and its action should be well understood to ensure perfect success.

TREES ON FARMS.

Another point of some importance, as connected with farming, is that of scattering trees in the hedges and open fields. On lands devoted exclusively to pasturing, such as are needed for their shade, and scattered generally over a country, they add much to its beauty and picturesqueness. Especially is this the case in this country, where, owing to a damp atmosphere, the falling leaves soon decay and mingle with the soil, instead of becoming dry and littering the land and highways, as with us. Englishmen are justly proud of their old, spreading trees. Landlords often enter it in their leases that no trees shall be cut down. Still in those parts of the empire, where the farming is best, the trees are going. You now see but few in the wheat-fields of the lowlands of Scotland,

for instance; and very few in the fields of such farmers as Mr. Pusey and Mr. Mechi. These men do not sacrifice their love for the beautiful in nature. They cultivate trees in their proper places. They are the last men, I suppose, who would leave a country naked and bald; but trees have no longer a place among their wheat and barley.

In our land of scorching summers, let there be trees. It would be barbarous to root them out from our cultivated fields, where they are injurious, without, at the same time, securing their growth in other places, where they are not only harmless but pleasing to the eye, conducive to health, and often more profitable than anything else the soil will grow. Let them study our pasture lands, as gems of beauty and of comfort. Our cattle need the means of coolness in summer, and warmth in winter. Only by attending to this matter shall we ever approach that excellence in this department, which our British brethren have attained. More depends upon cherishing the trees we have, than upon new. Let trees line our highways. Their roots and tops will be a little injurious to the bordering lands, but not much; the weary traveller and his beast may rest under their shade, our children shall delight the pallet from their produce; and our grandchildren build their houses with the timber they grow. If our road-sides were adorned by a tree once in five rods, the rows alternating with each other, as far as convenient, the roads, with the exception of here and there a wet place, which might be intermitted if thought desirable, would not be a whit the worse, and in many soils be far better. If one-fourth of these are rock maple, they might furnish sugar for the population, whenever it should be cheaper to manufacture than to buy; and no one can tell what future times may be. Rural dwellings should be adorned by shade trees. An American farm-house, under a sun shining intensely at least two hundred and fifty days in a year, is a very different thing from an English country residence, where the sun scarcely shines as many hours, and that mainly morning and evening. Yet the Englishman takes care to provide his residence with trees; the breezes that enter his windows come purified by a previous passage through dense foliage; but too often the American neglects to surround himself with these conservators of health and comfort; so that he and his family breathe air, not only scorching hot, but often surcharged with carbon and ammonia. An American farm-house, without trees at a little distance, (not so near as to produce injurious dampness,) is out of all taste, is unfavorable to health and comfort, and in utter disregard of the great law of adaptation to circumstances of situation and climate.—*Albany Cultivator*.

For the New England Farmer.

TO PRESERVE EGGS.

Take a suitable tub or pot, and put in a layer of salt; then set in a layer of eggs small end down, cover them with salt one inch thick; then another layer of eggs, and so continue. Eggs will keep for twelve months if kept in a dry cool place free from frost.

D. S.

Jaffrey, June 30, 1854.

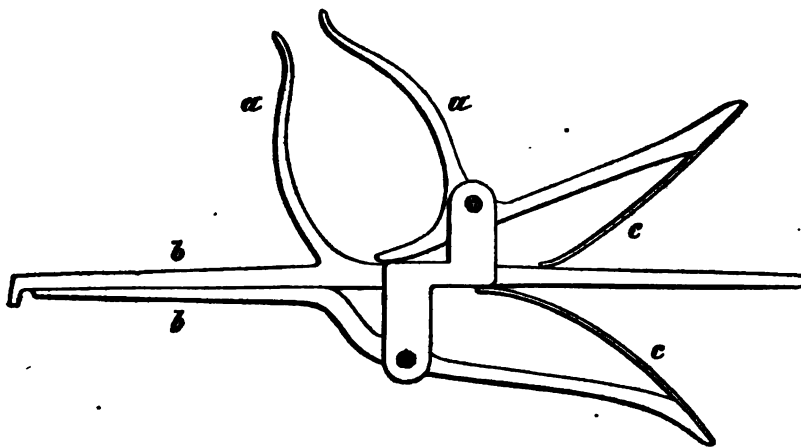
COW MILKER'S ASSISTANT.

This little implement will prevent a good deal of *swearing*. So you see it has a moral bearing. Notwithstanding the practice is wicked, vulgar, and ungentlemanly, a good many persons who milk cows, swear worse than "our army did in Flanders," when *provoked* thereto, by a rousing switch in the face with a vigorous cow's tail. It *does* rather disturb one's equanimity, especially if the animal has just risen from her bed, where

the tail has been recumbent in what certainly *will* give color and fragrance to the rose; but we should not be willing to jeopardize our veracity by saying that it is either of them in its present form.

Letters *a, a*, show the part attached to the large ord on the leg, just at the point of the hock; *b, b*, the jaw (now closed) into which the hair of the tail is inserted, and *c, c*, the springs by which the other parts are opened.

We have used it, and find that it answers the



purpose for which it was intended most admirably. It is made of brass, is perfectly simple, and will be wanted by all who have not raised their cows' tails.

The Hon. JOHN M. WARE, of Seabrook, N. H., is the inventor of the implement, and, we understand, has secured a patent upon it.

AN OHIO NOVELTY.

Up in Bryan, Williams county, Ohio—in the town—there is a novelty which is rarely to be exceeded in curiosity anywhere. All over the village the people are favored with natural fountains. The item thus describes the novelty:

It is supposed that there is an underground lake, at the depth of some forty or fifty feet, of considerable extent, as water has been found when bored for, for several miles around. This is also apparent from the fact, that every new well that is bored affects the strength of others in its immediate vicinity, until its stream is elevated by means of a stock to an equal height. The amount of water discharged by these fountains, however, is not proportionate or equal—they vary considerably in different parts of the town, the strongest ones being generally east of Main street. The water can be raised in proportion to the stream forced up. There are several that fill a two inch augur hole at the height of eight feet above the surface of the earth, and the others issue a somewhat smaller stream to the height of twelve or fifteen feet. Some of the larger ones frequently

throw up fish, and we are told that there is a very strong fountain about a mile east of this place, in which fish of a blackish color, of the length of three inches, have been seen.

The work of procuring water is simple and easy. There are seldom any stones met with, to obstruct the course of the augur, and but one or two days are required usually to sink a well, of five or six inches in circumference, the necessary depth. Water is found at an average depth of 42 feet. The augur passes through a loose sand until it strikes what is called "a hard pan," a bed of solid blue clay, of from two to three feet in thickness, and of such a nature that it requires a drill to penetrate it. Immediately below this "hard pan" lies the water embedded, it is supposed in quicksand, as for some days, in some instances weeks, large quantities of fine white sand are ejected by the water, but the stream finally becomes pure and clear and no sand is afterwards seen.

No season or state of the water has any effect upon these living fountains—nor drought nor flood can change their currents—they are ever the same—their source is inexhaustible, and therefore they cannot fail.

SPLENDID PLANT.—There is now in full bloom, in the Liverpool Botanic garden, a beautiful specimen of the *Wistaria sinensis*. This splendid plant, which is considered the finest specimen in Britain, covers a space of wall amounting to nearly nine hundred square feet. At the present time there are about six thousand *racemes* or bunches of flowers on it, each bunch bearing on an aver-

age about fifty-five flowers, so that it bears on the whole about 330,000 individual flowers. In addition to the pleasure given to the eye, this plant yields a most grateful perfume.

For the New England Farmer.

MATURITY OF PLANTS.

BY A. G. COMINGS.

The life and maturity of the various plants and vegetables which are cultivated among us, is a subject upon which a little more study and inquiry may be profitable.

Plants which are growing in a soil which contains no carbon, either in the form of vegetable matter, or otherwise, cannot mature their seed. Supplied with the mineral or inorganic elements necessary to their growth they may draw sufficient carbon from the atmosphere to promote the growth of the stalk; but not to mature seed. The organic elements necessary to produce a good growth of wheat straw, and also shrivelled and worthless seed, may be produced upon soil where nothing is wanting for the production of a good crop of grain but an increased quantity of old vegetable matter in the soil. It is so also in this respect to the fitness of soil for maturing corn, rye, oats, &c.

We can produce a good crop of turnips or cabbages, with but a small amount of old vegetable matter in the soil; if the mineral elements necessary to their growth are supplied in sufficient quantity. But if we want to raise cabbage or turnip seed, and have it perfectly mature and good, we must set them in a soil which is well supplied with carbon, in such a state as to feed the roots.

Those plants which produce seed the first year of their growth, and then die, draw away the substance of the root to mature the seed. Their death is therefore consequent upon this exhaustion. Those which produce seed the second year of their growth, and then die, are exhausted by producing the seed. This is the case with clover; and yet farmers find fault with clover because "it so soon runs out." But let the elements necessary to its growth be in the soil, and let it be mowed every year when just in blossom, and it will live many years, and the roots become very large. When the nature and value of clover comes to be understood, farmers will see it their interest to cultivate it.

Seed-producing crops always exhaust the soil greatly of that which in old soils is most wanting. If we would continue to raise much grain, of any kind, and not reduce the soil to utter barrenness, we cannot too soon consider the importance of plowing in green crops.

Some plants do not come to maturity, to produce seed, for several years. Among these, I believe we class potatoes. Raised from seed they must generally have several years of growth before they will produce seed. Before they become mature, they feed carbon and other elements more largely from the atmosphere, and produce larger tubers. They do not generally ripen early; and they appropriate more carbon in the form of an atmospheric gas. After they become seed-producing kinds, they pour less downward into the tubers, and consequently an excess of gaseous food is more injurious to them, and they are more

liable to disease. Roots and seeds do not commonly grow at the same time. In the period before maturity, every plant feeds more from the atmosphere; and at maturity more from the soil. This decides where it must draw its nourishment and support from, and what is, at different periods of growth, the current of its juices.

Nobody expects to see potato-blight in early summer, before the vines have come near to maturity; but why not? Simply because such a thing has never yet been known. But, there is, doubtless, a reason for all this.

The growth of grass for a few days after blossoming, exhausts the soil more than many days of growth does before the time of blossoming.

Large quantities of corn fodder may be raised with very little exhaustion of the soil, if it matures no seed.

Here is enough for somebody to talk about until somebody will do better by the subject.

Mason, N. H.

VERMONT STATE AGRICULTURAL SOCIETY.

The Fourth Annual Fair of this Society will be held at *Brattleboro'*, on Tuesday, Wednesday and Thursday, September 12, 13, and 14, 1854. The premiums offered are liberal, and embrace nearly everything produced by the farmer. Persons residing out of the State, may compete for premiums on foreign stock, plowing, and all articles in the floral, mechanics', and manufacturers' halls; and may make entry of animals or articles of any class, for exhibition merely, which will be admitted within the enclosure for that purpose, if deemed worthy by the Executive Board, or its agent at the Secretary's office.

To those who have not visited the region, there will be an additional adducement, to witness the romantic scenery in and about *Brattleboro'*—the rich intervals of the Connecticut and the grand mountain scenery on the New Hampshire side. On more than one public occasion we have shared the hospitality of the people, and feel safe in saying that the Vermonters will only act out their generous impulses, when they do everything needful to make their visitors comfortable and happy during their stay among them.

The officers of the Society are as follows:—

Hon. *FREDERICK HOLBROOK*, of *Brattleboro'*, President. *H. B. Stacy*, of *Burlington*, *E. Hammond*, *Middlebury*, *J. W. Colburn*, *Springfield*, and *E. B. Chase*, of *Lyndon*, Vice Presidents. *J. A. Beckwith*, *Middlebury*, Cor. Secretary; *Charles Cummings*, *Brattleboro'*, Rec. Secretary; *Edward Seymour*, *Vergennes*, Treasurer, and *E. P. Walton*, *Montpelier*, Auditor. The Directors are Messrs. *B. B. Newton*, *Henry Keyes*, *J. M. Vail*, *George T. Hodges*, *Portus Baxter*, *John Gregory*, *A. L. Bingham*, *John Howe*, *O. Wood*, and *George Campbell*. *Lyman P. White*, Superintendent at the Fair.

All the Railroad companies in Vermont will

carry animals and articles for exhibitions to or from the Fair, free of charge, and visitors each way, at half fare. It is also expected that similar arrangements will be made with railroad companies out of Vermont.

For the New England Farmer.

FARMERS' CLUBS.

It is an old and long harped subject, we are very well aware, and if they had been organized, as the benefit of farmers require, all over the land, in every town, every school district, then they would not furnish so irksome a subject for so many readers as we from the very lethargy of the people may suppose they do now.

We have urged the establishment of these institutions both in public and private until we have very little hope that what we have to say will be read. But once more, dear reader, we ask your attention. We have a *new* story to-day, and it may interest you. At any rate, we took courage as it was told to us, and have felt refreshed by its prospective influence ever since.

In the town of Sunderland, Franklin County, a Farmers' Club was formed in January, 1853. There were only twenty-four individuals associated in its first formation. But what then? If there had been only three, those would have found a living benefit from so associating, and their number, like the annual circles on the oak, would have increased, until the shadow of their good work would have spread far.

Fully to illustrate the objects of this club, and to show what results may be anticipated from its labors, we give, as a friend has given us, the following articles from its constitution.

"**ART. 2.** The object of this club shall be, the circulation of general intelligence and practical instruction in all branches of Agriculture, Horticulture and Floriculture.

First, by the establishment of discussions, lectures, exhibitions, experiments and other means for the general circulation of knowledge on subjects embraced by the club.

Second, by procuring the most rare and valuable kinds of seeds, scions, plants, shrubs and trees.

Third, by the establishment of a correspondence and exchange with other bodies interested in the same object.

Fourth, by planting shade trees on all the avenues of the town."

Now, we have no doubt but this Sunderland is destined to be one of the most beautifully attractive places in our country, if art is called into action, as we may suppose it will be, through the influence of this club. The intelligence of her sons, too, if they carry out their broad plan of investigation and improvements, will more than keep pace with the progress of the age, and beautiful results both in mind and matter will long be found there, and will go out from them to give a richer tone to improvement in their own and other places.

It gives us pleasure to be able to say the number of members of this club is increasing,—that an agricultural library, if not already formed, is in contemplation, and that every indication is given of its permanent success.

If every town would adopt the course adopted by Sunderland, it could not be long before our country would become, what nature has designed it to be, a garden of fertility and exquisite beauty. We can readily infer this, when we see what individuals have accomplished in the renovation and improvements of their own premises. And what individuals have accomplished in a less but brilliant way, the united efforts of a community can certainly carry out with less labor and far greater success by their united operation.

One object of the association is, to plant shade trees until all the streets in that venerable town become avenues of cool and refreshing shades. To the slothful, this may look like a bold and hazardous enterprise—yet we think that three years will see it accomplished, and the trees all flourishing in healthful vigor, the pride of the inhabitants, and the comfort and admiration of all travellers. What a picture! A town noted for thrift, whose streets are all shady avenues! It will be an advance of many steps beyond what the progress of the age appears to indicate. It will be giving new beauty to a bright gem in the diadem of earth.

But, supposing the adjoining towns should for one or two seasons adopt the same course as is being pursued in Sunderland. Suppose the same spirit should operate through Franklin County, would not Franklin County be thought the brightest jewel that glittered on the craggy brow of old Massachusetts?

Let it be a prime consideration in the economy of our State, to adopt this system of improvement, and how soon all our thoroughfares would become inviting shades, and Massachusetts would acquire a renown in her rural pursuits which would give her a higher rank than she now in her glory possesses in the national sisterhood, and which command for her unabating respect through the nations of the earth.

May we not hope in view of this matter, that when the bountiful harvests which the earth promises as the reward of persevering labor are all gathered, and the season of unbroken care and unremitted labor has passed, and the leisure they demand has come to relieve the wearied mind and toilworn body, that many, very many towns in our State, will establish similar institutions and pursue the same laudable objects until the triumph they promise is fully attained.

Yours, truly,

Elmwood, June 8, 1854.

W. B.

REMEDY FOR SMUT IN WHEAT.

MESSES. EDITORS:—I see a writer in the *Country Gentleman* asks for a preventive for smut or fungus in wheat. This, together with the frequent inquiries made by our northern friends, in the wheat growing regions, induces me to give you one that is simple, cheap, never failing. It is simply a soak in water in which blue vitriol has been dissolved, in the following proportions: For each 4 or 5 bushels wheat, dissolve 1 lb. blue vitriol in water, sufficient to cover and properly soak the wheat; let it remain in this soak 20 to 24 hours—sow immediately after taken out of the soak. Pursue this annually and properly, and my word for it, you will never more hear complaint of smut in wheat, however badly the seed from which it

was grown may have been mixed with smut. This is the discovery (at least in this State,) of an old and successful planter and wheat grower of this district; and has been tested many years, always successfully, by hundreds, yea, thousands. Some say this soak also effectually eradicates chess, in a few years, but of this I am not fully satisfied. But when properly applied and used, that it is a sure and effectual remedy for smut, there is not the shadow of a doubt.

If new, or untried, with you, get a single farmer to make the experiment. He, you, or the country generally, will never regret it.—*R. Stewart, in Country Gentleman.*

A SHOWER.

BY REV. RALPH ROTT, A. M.

In the valley that I know,—
Happy scene!

There are meadows sloping low,
There the fairest flowers blow,
And the brightest waters flow
All serene;

But the sweetest thing to see,
If you ask the dripping tree,
Or the harvest-hoping swain,
Is the rain.

Ah, the dwellers of the town,
How they sigh,
How ungratefully they frown,
When the cloud-king shakes his crown,
And the pearls come pouring down
From the sky!

They deem no charm at all
Where the sparkling jewels fall,
And each moment of the shower
Seems an hour.

Yet there's something very sweet

In the sight,
When the crystal currents meet,
In the dry and dusty street,
And they wrestle with the heat,
In their might!

While they seem to hold a talk
With the stones along the walk,
And remind them of the rule,
To "keep cool!"

But in that quiet dell,
Ever fair,

Still the Lord doeth all things well,
When his clouds with blessings swell
And they break a brimming shell
On the air;

There the shower hath its charms,
Sweet and welcome to the farms,
As they listen to its voice,
And rejoice!

For the New England Farmer.

LIGHTNING RODS.

MR. BROWN:—I saw an inquiry in last week's *Farmer*, whether lightning rods are a "safe and certain protection from the fluid," and also, if persons or buildings are ever injured, or life destroyed, when they are properly put up! In answer to the first inquiry, I would say that "Lightning Rods," when properly put up, are safe protectors. They should be made of iron or copper (iron is the less expensive, and answers every purpose;) they should be at least one-half inch in diameter, three-fourths would be better, and if

made of more than one piece, should be closely connected at the joints by firmly *screwing* one section into the other, because where they are *linked* together, as many rods are, they are liable to rust between the joints and break the connection—for the rust is not a good conductor of the electric fluid—and from this cause the lightning will sometimes fly off from rods constructed in this manner. To put them up is the next operation; the rod should terminate at the bottom in *moist* earth, in a well or cistern of water if convenient. The rods should be fastened to the building, once in four or five feet by staples of iron or brackets made of wood, but the rod, *at the fastening points, should always be guarded by a short glass tube*; many people use necks of bottles broken off and pushed on to the rod before the operation of putting up is commenced. The rods should extend upwards to a distance of four or five feet above the object to be protected, and should be made pointed and pronged at the top, and it is well to have them tipped with silver. On large buildings, more than one is needed; they should not be placed more than thirty feet apart at the most. There is a lightning rod patented and manufactured by Mr. SPRATT, of Cincinnati, Ohio, which is the best and safest rod I have ever seen, and it is not expensive, as it can be put up in most any part of New England for 15 or 16 cents per foot, complete. In answer to the second inquiry, I would say that I never knew a building protected in the above manner injured by lightning; but a rod badly constructed, and badly put up, is worse than none.

South Deerfield, N. H.

BRAD.

For the New England Farmer.

HOEING.

As June is the month for weeds and hoeing, perhaps a few hints respecting them, at this time, may not be amiss. All agree that it is necessary to destroy the weeds among the corn and potatoes in order to insure good crops: one hoes merely to kill weeds, while another believes that the growth of his corn is promoted by hoeing the earth up pyramid like around the young stocks; one is very particular to dig up every weed and shape the hill workman-like, believing in the old adage, that once well hoed is twice hoed; another hoes his corn three times, because his father, uncle, or grandfather, or somebody else, did the same, and invariably had good crops. Now the truth is, it is not always necessary to hoe the same piece of ground three times. While it would be economy to hoe others five times.

I hoe merely to destroy weeds, without making much hill,—corn without hills—like the child without crutches—learns to stand, and receives more benefit from every shower than when hilled.

Many finish their hoeing in June, in order to be ready for haying, but it is better to cut the earliest hay this month and defer the last hoeing a week or two, for the reason that the later you hoe the less weeds will mature in your field. For instance you have a weedy piece of ground—you hoe it three times, completing it the last of this month—July brings on a luxuriant crop of weeds—*Cr*y August succeeds, and your field contains but sufficient moisture for your corn crop—and behold, you have a crop of weeds with your corn which requires as much of the same element for

support—the consequence is, both partake and both suffer. Your corn-leaves are rolled up like so many segars, and instead of a full crop of corn you are liable to receive only an apology for one.
Stowe, June 1, 1854. H. F.

WHAT KIND OF FARMING?

HENRY F. FRENCH, Esq.,—Dear Sir:—You will certainly pardon me for introducing myself to you in this manner; but sir, after having read many articles from your pen, published in the *New England Farmer*, I believe you are capable (if you will) of giving me just such advice as I most need. I notice an article in the *Farmer* for June, with your name attached, headed, "*Stick to the Farm.*" Now, sir, my object in writing this, is to inquire what kind of a farm, in your opinion, will be for the next 10 years the most profitable? I mean to take everything into consideration, the cost of labor as well as the price of different kinds of farm produce, and to farm it in New England.

What I mean by inquiring what kind of a farm, &c., is whether there is the most money to be made on a grass farm, or both combined, or whether it is best to improve but a little land, devoted wholly to raising vegetables for marketing. In case you decide in favor of a grass farm, please tell me what is the most profitable stock to stock said farm with? Whether it would be best to select a dairy farm and manufacture butter and cheese for the market, or would it best to stock with young stock, or sheep, or both combined, and turn off as much beef or mutton or both as may be? * * *

I am a young man, and have had but little experience in farming; hence I am desirous of obtaining the advice of the experienced.

Please answer soon.

Yours truly,

J. D.

June 9, 1854.

Exeter, N. H., June 17, 1854.

MY DEAR SIR:—I wish it were in my power to afford you the assistance you ask, in your letter of the 9th inst., for I know by experience, the difficulties which beset every thoughtful man, at various critical points on his life-journey, when important steps must be taken, and the path is not plain before him. As I do not know the extent of your pecuniary means, or your habits or condition in life, were I as wise as Solomon, it would be impossible for me to do more than to suggest some general views as to the advantages and disadvantages of the different kinds of farming. Taking it for granted, that you are married or soon will be, to a well educated, industrious New England girl, whose comfort and taste you will always consult, and who will be ever ready to do more than you desire, for the promotion of your interests, and that you have some means of purchasing a farm, and are determined to remain in New England, let us consider first what are the objects to be attained, and then how to attain them. Money is always a means, and not an end, and you probably would not consider it a very desirable speculation to die rich, at the end of five

years, as so many of the most fortunate adventurers to California have done. The advantages of good society, and good schools, go far to compensate us for the want of the fertile lands and golden streams of the far West, and no amount of wheat or corn or gold can compensate one child for the want of a good education or an upright heart.

A man of good education, as your letter shows you to be, would find his own happiness and that of his family essentially promoted, by living in or near some considerable town or village, where they would be within convenient reach, not only of neighbors, and schools, and churches, but of the railroads and telegraph, and of lyceums and concerts and libraries. To be sure, these things are not money, but they are money's worth, which is all that wealth is valuable for.

Now a sheep or stock farm must necessarily be extensive, and of course, be located where land is cheap. For such a farm you need large pastures, and six or eight dollars an acre is as much as you can afford to pay for it. Again, to raise animals you must feed large quantities of hay, and generally, neat cattle will, at three years old, have consumed more hay at eight dollars a ton, than they are worth. For a sheep or stock farm, you must generally go into thinly settled regions, where the pastures are new and rich, and where the market value of hay is low.

If you are willing to waive the advantages, to which I have alluded, the inducements for selecting such farms are at present very strong. They require less labor to manage them, than any others, and the prospect is, that their products will remain at high prices. I do not live in a sheep growing district, and have very little knowledge of this branch of husbandry, and so the less I say of it, perhaps, the better.

In the lower part of New Hampshire, and much of Massachusetts, I consider hay and apples the most profitable crops we can raise, but in order to raise hay we must have manure, and where this cannot be bought it must be made, and to make it, we must keep stock of some kind. My notion of the matter is, that one must use considerable Yankee shrewdness to manage a farm profitably, in this region. For myself, at present, I should, if I wanted a farm, look for the best one I could afford to buy, near a railroad, within thirty miles of Boston or some other good market, with a good tract of low meadow, which might be reclaimed into mowing, with the upland tolerably free of stones, with wood enough for use and ornament, with apple trees already grown, which I should graft to suit myself, with water running through it, for my cattle to drink, for my children to play by, and to bring into my buildings by aqueducts, or hydraulic rams. I should have the idea of keeping about twenty cows, or as many as

I could feed without going off the farm for anything, a span of heavy horses, and a yoke or two of oxen when I chose, keeping myself ready to buy or sell, according to circumstances. To relieve my family of labor in the house, I would generally sell the milk for the market, realizing nearly fifty dollars each from my cows, for the year, at the present prices of milk, at the door. If I had plenty of help in the house, I would make butter, as being more profitable, and would, by the help of the milk, keep about as many swine as cows. I should look sharply into the swamps for a place for cranberries, which afford as profitable a crop as any other.

I would not have a large or stylish house, nor would I feel obliged to ride to church in a carriage worth two hundred dollars, when I preferred walking, because my neighbor Jones did, or to furnish a parlor elegantly with Victoria curtains, or Prince Albert carpets, and keep it shut up, because I was afraid of what Mrs. Grundy would say.

I think we New Englanders are more extravagant in our dwellings, and carriages, and furniture, than any other people on earth.

Furthermore, I should keep my eye on the market, and when I thought proper, I should put in an extra acre of early potatoes, or perhaps an assortment of market vegetables. I should attend the cattle markets, and buy and sell cattle to keep my stock good. When hay and cattle were both at extravagant prices, as at present in this neighborhood, I should take the liberty without asking permission of the town authorities, to sell off the most of my hay and stock, and wait quietly a year or two the fall of the market, in the meantime trying a few scientific experiments with guano and super-phosphates, until I should have manure again of home manufacture.

The Eastern part of Massachusetts is full of such farms as I have described, and I know of no people in the world whose life seems to be nearer to the true idea of comfort and independence than those who occupy them. They work hard but they labor with the spirit and courage of freemen.

They have no masters to drive them, either with the lash, or the fear of losing their offices. Such days as this—the anniversary of the battle of Bunker Hill—inspire them anew with thankfulness for the blessings of freedom.

They are not rich, but they know not poverty, and no wealth elsewhere can purchase the security, the civil and religious liberty, the education of intellect, of heart and of taste, enjoyed by the farmers of New England.

With much respect, HENRY F. FRENCH.

A NEW USE FOR COLLODION.—Cotton powder, dissolved in ether, forms a varnish which sticks fast, dries quickly, is impermeable to water and

impenetrable to air; it is called collodion, and is much used in surgical cases. A gardener has just discovered that it may be made of vast utility in producing plants and shrubs from cuttings. On making the cutting, the varnish is applied to the part cut, which immediately becomes closed, or, so to speak, healed. The cutting is then planted in the ordinary way. Out of twenty-six cuttings of hot-house plants to which collodion was applied, twenty-three struck root, whereas out of the same number to which it was not applied, only twelve succeeded. With plants kept in green-houses, and those in the open air, even more satisfactory results have been obtained. The collodion may also be most advantageously employed in grafting.

For the New England Farmer.

CLIMATE IN CANADA WEST.

FRIEND BROWN:—Many people have an idea that Canada is a *frigid region*, lying somewhere north of civilization, where

"Winter reigns tremendous o'er the conquered year,"

and to mention the name almost makes them draw closer to the fire. A little study and reflection will satisfy any one that this is incorrect. True, at Montreal and Quebec, and in a large part of Canada East, the winters are long and the cold is severe, but the best part of the Province, containing nearly all the inhabited part of Canada West, lies south of the latitude of Montreal, and directly west of the State of New York. The climate and productions are similar to those of that State.

It is to be hoped that our geographers will, in future, devote more than *half a page* to the history and description of this growing province.

My intention, when I commenced this article, was to give the state of the weather for the last six months at this place, showing the extremes of temperature, and also the mean, based upon actual observation. My residence is in Prince Edward County, in lat. 44° north, about a degree and a half north of Boston, and on the meridian of Washington. The climate is very changeable, often varying from 20° to 40° in twenty-four hours. In one instance, last winter, the mercury fell 36° in twelve hours.

By reference to my record of the weather in which the height of the mercury at 6 o'clock, A. M., and at 1 and 6 P. M., is daily noted, I find the

Mean temperature of the 12 Mo., 1853, was	24.40°;
" " " 1 " 1854, "	21.61°;
" " " 2 " " "	19.53°;
" " " 3 " " "	30.73°;
" " " 4 " " "	40.53°;
" " " 5 " " "	56.70°;

In the 12th month the range of the mercury was from 45° above to 11° below zero.

In the 1st month the range was from 46 above to 13 below.	
" 2d " " " 41 " 10 "	
" 3d " " " 53 " 9 above.	
" 4th " " " 66 " 22 "	
" 5th " " " 76 " 29 "	

Though 13° below zero was the coldest at this place, yet it was said to be 20° below in some localities in this vicinity. Snow seldom falls deep here, though there is much more in counties north of this. Perhaps our proximity to the lake, has a tendency to diminish the depth of snow. Last winter I measured the depth at the close of each storm, and found the total 5½ feet, yet it was not

more than a foot deep at any one time, and most of the winter not more than half a foot.

Sleighing was good about ten weeks,—a longer time than usual. Robins and sparrows appeared here the 13th of 3d month, but in a few days the weather became colder, and they were obliged to retreat to the forests for shelter until near the end of the month.

As usual, in 4th month, the weather was very changeable. Thunder showers and snow squalls, warm days and frosty nights, visited us. The storm which killed the birds in the vicinity of Boston, mentioned in the last monthly *Farmer*, did not reach us, yet it was cloudy, and a cold N. E. wind blew most of the time from the 14th to the 17th. We had a severe snow storm the 27th, but warm weather soon followed, and I think no birds perished. Larks appeared here the 7th, swallows the 10th, bluebirds the 11th, and goldfinches the 30th.

In the 5th month the weather was favorable to the growth of grass and grain, though rather wet for cultivating clayey soil. When warm weather commenced vegetation was rapid, and at the close of the month the earth was dressed in her loveliest vernal robes. A carpet of green, sprinkled with a profusion of wild flowers, was spread over field and forest, attracting the lover of nature from the din and bustle of business to range in the woods, and breathe the free air of heaven, made musical by the melodious notes of the feathered songsters, all tending to raise the thoughts to Him,

"Who, in His sovereign wisdom, made them all."

Plum and pear trees were in full bloom the 24th, and apple trees the 29th and 30th. There was a very full bloom, and the prospect is now good for an abundant crop of all kinds of fruit.

Winter wheat was badly injured by the late frosts this spring. Rye looks well. A great deal of spring grain was sown, and there is now a prospect of a rich harvest. L. VARNEY.

Bloomfield, C. W., 6 mo. 12, 1854.

For the New England Farmer.

VIEWS OF FARMS.

We are gratified to notice, that the practice which has prevailed for several years in our County of Middlesex, of sending out a committee to view all improvements to which their attention is called, is about to be adopted in the counties of Norfolk and Essex, and that the Trustees of the Agricultural Societies in those Counties have appointed committees for this purpose, with an assurance that the incidental expenses of travel shall be paid from the Society's funds. This is a reasonable and judicious appropriation of money. If such committees will but observe and report as they should, more benefits will be derived from the publication and circulation of such reports, than can be obtained for the same amount in any other way.

Farmers, extend to your committees a cordial reception, and let them feel that their presence meets a hearty welcome at your homes—they come as friends, and will do you no harm.

June, 1854.

REMARKS.—There is no one way, in our opinion, in which the interests of an agricultural society

can be so much promoted, as by the labors of an observing, intelligent, farm-viewing committee. They should be men strongly imbued with a love of the art, thoroughly acquainted with its practical details, and capable of looking at it in a scientific point of view, and of such address as to introduce themselves readily to all classes of the farmers of the county.

The labors of such a committee will not be confined merely to a view of the farms entered for premium; they will note the general condition of agriculture—the appearance of the dwellings, the barns, granaries, fences, fields, orchards and woodlands, and the implements in common use. All this should be fully reported by the committee and published, and then the practices in the different counties may be compared, and a tolerable history of the condition of agriculture collected each year.

The committee, in their circuit, may also converse freely with many of the farmers, distribute the publications of the Society, or those of others, obtain new members, and generally advance the interests of the association.

The gentleman who has introduced the subject in the paragraph above, has probably done as much to establish and sustain agricultural societies, as any man in the Commonwealth.

For the New England Farmer.

EXPERIMENT WITH POTATO ROT.

GENTLEMEN:—I send you a short account of a successful experiment I made last summer against the potato rot. On the 5th of July last, I found my potatoes with the first signs of disease; all the top leaves looking as if they had been touched with a hot iron. I immediately procured a bushel of fine ground plaster and half a bushel of fine salt, and mixed them well together dry, and had a large table spoonful put to each hill, lifting up the vines carefully and putting it on the surface of the ground, as much among the vines as it could be. It must be applied dry—this arrested the disease at once. The crop ripened well, and the potatoes were excellent. While all in our immediate neighborhood rotted, I have not seen a rotten one amongst them. I planted a third of an acre, and it required a bushel of plaster and half of salt—they were planted 3½ feet one way, and from 12 to 15 inches the other. The best time to put it around the potatoes, is immediately after hoeing or hilling the last time, as the crop is said to be increased enough more to pay for all the expense and trouble, beside getting a better quality.

Very respectfully,

GOOD ADVICE.—Stick to your trade, boys, and learn to work, if you would be truly independent. There is not a more pitiful sight than a half learned mechanic applying for work. He is always at the foot of the hill, and labor as he may, unless he has attained the years of his majority he will never be perfect, and can calculate on poverty as his portion with a good deal of safety.

Newport, N. H., 1854.

J. B. WILLARD.

CUTTING AND CURING HAY.

For more than thirty years it has been a common saying among farmers, that timothy hay should not be cut until ripe—that is, until the heads were plump and full of seed. I was raised in a country where grass was thought ready to cut as soon as it was large enough; and after I came here, I followed through the same practice, although in opposition to the opinion and practice of many of my good neighbors. I followed the practice so long, and had so many opportunities to prove it, that I know to a certainty that my practice is right. For some 8 or 10 years past, I have used mostly timothy hay. Previous to that, I used more clover. Very often I have not been able to get it all cut before harvest; and having several cattle and sheep yards, some one lot of cattle had to eat the ripe hay, and I am perfectly sure that it is a great loss to let timothy hay get anything near ripe: in fact, whenever it begins to come in blossom, it is time to begin cutting. If there is much to cut, and not plenty of hands, some will then get too ripe. I would prefer good wheat straw, cut before it is too ripe, to ripe timothy, for either sheep or cattle.

A number of years ago, I built a cow house, and that season I cut my timothy hay earlier than usual. I stabled my cows for the first time that year; fed them the early cut timothy hay, and took every possible care of the cattle, but they became poor, would eat but little of my green hay, and by spring the cows and young cattle were overrun with lice, and poorer by far than I ever had cattle. I concluded I had cut my timothy hay too green, and that my neighbors were partly right. Next season I let it get nearly ripe, but my cows did no better. I then concluded it must be stabling, and took out my stalls, and turned my stables into sheds. After that my cows got fat on green hay. After I began to fatten cattle extensively, I found out that my cow stables were not thoroughly ventilated, and this was the only reason they did not do well in their stables.

The loss farmers sustain by letting their hay get too ripe, is immense. I would rather have four quarts of meal per day, with good green timothy hay, than to have a peck with ripe hay to fat a steer with. Cut grass or clover green, cure in swath or cock, and it will make either sheep or steers fat in five months, without grain, if they are properly attended to, but still it is more profitable to feed part grain.

I have wintered this season about 200 sheep on wheat straw, with one bushel of oil cake meal to the 100 sheep per day, and now they are fat, although but thin when I bought them.

New Genoa.

JOHN JOHNSON.

We believe with our correspondent, that the loss sustained by our farmers, by too long delay in cutting their grass is immense. It is a subject to which we have frequently called the attention of our readers for years past. Both science and experience demonstrate that the proper time for cutting grass is when it is in blossom. A writer on the scientific principle, in the process of hay-making, lays down the following rules:

1. Grass must be fully developed before it is mown; if not, it will be found in its early stages to contain so much water as to be reduced, on

drying, into so small a compass, that it will in quantity much disappoint the hay-makers.

2. It must not be permitted to stand until its seeds are formed, much less ripe. All plants in arriving at maturity have their starch and sugar gum in large quantities converted into woody fibre—a wise provision of Providence for enabling the stem to bear matured seeds—and as sugar, gum and starch are nutritive elements, it is desirable that they should be preserved, and hence the point for successful grass-cutting is that between the full development of the plant and before the formation of the seeds; in other words when they are in flower.

A government report, published in the Edinburgh Quar. Jour. of Agriculture, on the "chemical properties of grass and hay as food for cattle," says—"If as we have endeavored to show, the sugar is an important element of the food of animals, then it should be an object with the farmer to cut grass for the purpose of haymaking at that period when the larger amount of matter is contained in it. This is assuredly at an earlier period of its growth than when it has shot into seeds; for it is then that the woody matter predominates—a substance totally insoluble in water and therefore less calculated to serve as food to animals than substances capable of assuming a soluble condition. It ought to be the object of the farmer to preserve his hay for winter use in the condition most resembling the hay in its highest state of perfection.

We add to the above, the testimony of several careful and observing farmers, heretofore published in the *Cultivator*.

C. M. Bement—Was formerly in the habit of cutting his timothy quite late, because it was easier cured after it got pretty ripe; but he ascertained, from careful experiment in using hay thus cut, that it wanted substance, and that the best time for cutting hay was when the grass was in blossom.

Sanford Howard—The stems of grasses were filled just before the formation of the seed, with a starchy or saccharine substance. In perfecting the seed, the stems were exhausted of this substance, it being consumed in forming the seed.—The plant should be cut before the nutriment has passed from the stems.

W. H. Sotham—Would as soon have good bright straw for cows or sheep, as timothy hay cut after it has gone to seed. Cut all his hay early. There was another great advantage in cutting early—the roots retained their life and strength better, and the after feed and future crop were more abundant.

J. Pratt—Commences cutting his hay generally before any one else thinks of it, or as it begins to blossom, and gets help enough to cut it all as soon as possible. He has kept a dairy of sixty cows for nine years, and attributes his success with his cows, and the fine healthy appearance of his other stock, mainly to early cut hay.

Since the above was in type, we have received an interesting paper from a correspondent in Mechanicsville, on the proper time for cutting, and the best mode of curing hay, which shall have a place soon, and for which the writer will please accept our thanks.—*Country Gentleman*.

OUR AIMS ARE TOO LOW.

The present day, says the *Country Gentleman*, is justly noted for the remarkable facilities which it affords for the improvement of the mind, and the general culture and refinement of the whole man. The means of thorough education are within the reach of every young man of determined will and resolute heart. Books upon every science and art, in every department of literature, invite personal Society, the very best, is free to every one who shows himself worthy the companionship of cultivated minds. There is no "lion in the way," of the advancement of any one who has a capacity for knowledge and the desire to make himself useful.

These facts suggest naturally the inquiry, why is the standard of literary attainment and individual excellence so low? Why are not our young men and young women availing themselves more generally of their opportunities, and elevating the tone and character of society? Why are the best years of our lives spent in the same round of vacant pleasures that gave amusement to "the young people" of fifty years ago, when schools and books were rare?

The fault lies in this direction: Our young people have not been taught to appreciate the beauties and feel the pleasures of association based upon intellectual sympathy and a mutual literary taste. They have seen that business men were rated by their relative tact and wealth, and that fashionable society, gilded and hollow, demanded no solid mental acquirement, or moral worth, to secure its patronage. A few high-minded young men and women, who have sense enough to be superior to frivolity and display, have discarded "fashionable" amusements, and are learning to estimate themselves and each other by the quality of mind and heart, and to strive for a higher degree of culture and excellence. We wish our land was filled with young minds of this character. In life purpose is every thing. We cannot aim too high, if we labor rationally and manfully, and honestly. We may, with our best exertions, fall below our aims; but it is certain that we shall never rise above them.

In continuation of this thought, we commend the following, from the *Springfield Republican*. Read, reflect and practice accordingly:—

There are subjects which, to touch upon with point and candor, would give pain and offence, and which need touching upon in the exact proportion that such pain would be given. Our only wish, in speaking of "our young people," is to excite a profitable course of thought, and to do good. So far as our observation extends, the young men of our acquaintance do not at all appreciate the age in which they live, or the duties which are soon to devolve upon them. We meet them in the street, we see them at church, we talk with them across the counter, we come in contact with them in occasional conversation, and the principal impression left upon us is a nicely fitting coat, a clean pair of boots, easy manners and a contented frame of mind. We go into their rooms, and find a novel, which they declare to be very good or very stupid. The Bible is out of sight, and the history and the book of travels are not upon their tables. If we speak of politics, they "don't care anything about politics, and are not posted;" if of religion, they think "it pretty

much as a man thinks; if of any great question agitating the world abroad, they don't pretend to keep track of foreign affairs." As for thoroughly digested and well informed views of the literature of their own language, they have none. Notions they have in plenty—opinions with them are scarce.

This condition of things grows out of a mistaken idea of life and its true ends. Business is the one subject that rises above everything else. On this, they are well informed. Here, they are perfectly at home, and it is this establishment in their minds of what was intended to be secondary and subsidiary, as the grand end of life, which prostitutes their energies, and dwarfs their whole being. God never made mankind with the intention that selling dry goods, and counting money, and digging potatoes, should be the great ends of its pursuit. These are all simply the means of sustaining animal life, and securing personal and social necessities and comforts. A true manhood is the grand object of life,—that development of the intellect and the heart, that symmetrical and sturdy growth of character, which makes a man a man, which lifts him above the accidents of fortune, and give him power, influence, self-reliance, intelligence, energy, and, above all, a feeling of equality and self-respect, worth more than all the wealth of the Indies.

Tried by the standard suggested by this view, how many of our young men are men or are growing to be men? We leave it for them to answer how, in the time to come, when they take the place of their employers, they are fitted to meet the responsibilities of society. What kind of tone do they propose to impart to their own circle? What beneficent movements are they to lead in, and be the supporters of? These are serious questions which they are now deciding in their everyday life and pursuits. Society is to be in future what you, young men and young women, make it. Shall it be frivolous, shallow-mannered and shallow-hearted, or shall it be intelligent, high-toned, pure and ennobling, as becomes true manhood and true womanhood?

We are aware that there are discouragements in the way. We are met with the statement that there is no use in trying to get into good society unless you have money. We answer that society that measures its members by money is not good society, and is not worth getting into, and would be a curse to you if you were to get into it. Make your own society good, and then you will have good society. What to you are those poor specimens of humanity who estimate your importance by the corpulency of your purse? They do not call for a thought—and if you have true self-respect, you will not give them one. Tom Carlyle maintains the opinion that every man, by a law of nature, will find his own level, and he is right. You cannot miss it. We can select young men in Springfield who imagine that no one thinks of them, and who, in pursuing their schemes of self-improvement, think they are unobserved. Public opinion knows and measures them all, and their good name is abroad. When they come to make an independent movement for themselves, they will meet it. The world is coming more and more every day, to estimate men for what they are, and what they do and can do.

We are led to these remarks by the advent of

that time of year when self-improvement is more easily pursued than any other, and when schemes for this object are usually devised and consummated. What are you going to do the coming Fall and Winter? Are you going to form reading and debating clubs? Are you going to form circles for cultivation in composition? Are you going to lay out for yourself, or under the advice of friends, a course of private reading? Or are you only calculating on some private whist parties, or a few public cotillon parties? These are questions in which we feel a greater interest than we can express, for we know, and can but profoundly feel, that upon their decision depend the future usefulness, respectability and happiness of many a young man and woman.

MASSACHUSETTS VS. CALIFORNIA.

The *California Farmer*, published at San Francisco, by WARREN & SON, in noticing the agricultural movements in this Commonwealth, says:—

"The Secretary of the Board of Agriculture of Massachusetts presents us in his grain table with the following data, and we present them to our readers in contrast to those of California. The following are the average crops of Massachusetts, as reported to the Board, and with them in contrast the crops, as reported to us by the record at the exhibition of last year.

	Massachusetts.	California.
Barley, per acre.....	31 bush.....	60 bush.
Wheat.....	17½.....	50
Oats.....	30.....	45
Rye.....	14½.....	50
Carrots.....	700.....	1500
Beets.....	800.....	1500
Ruta Baga.....	500.....	1000
Mangel Wurtzel.....	800.....	1500
Onions.....	400.....	500
Potatoes.....	150.....	250

In many cases the crops of barley in this State upon entire ranches will average 75 bushels, and those of wheat 60 bushels. Potatoes, in many instances, yield 300 to 350 bushels in large fields. In some cases that have come to our knowledge, the yield of root crops has been 25 and 30 tons to the acre, and onions have yielded ten or twelve tons to the acre, and even sixteen tons have been grown."

The *Farmer* then adds, that "the Middlesex County Agricultural Society present, in their premium lists, an inducement to agriculturists that should stimulate them to renewed exertions, and thus develop hidden treasures in the soil that could be brought forth in no other manner. The example of this county should be followed by every county in this State, where the subject of agriculture is prominent, and premiums should be offered in proportion to the advancement of the science." And after giving a list of each class of premiums, it says that "needlework, machinery, household manufactures, agricultural tools and implements, all have due attention, and a liberal allowance of special prizes. The total amount of cash premiums is over one thousand dollars, besides valuable prizes in books, &c. Such exertions to arouse a proper interest are beyond all praise."

The Messrs. WARREN are making strong efforts

to impress the minds of the people of that new State with the importance of agriculture. They have established the *Farmer*, and the earnestness and ability with which they conduct it, will undoubtedly be of more value to the State than the accumulated gold of a thousand miners.

AGRICULTURE IN EGYPT.

It is as true now as in the days of Zechariah, that in the land of Egypt there is no rain—Zech. xiv. 17—and the country is watered wholly from the Nile. A trench is dug from the river leading to a reservoir below its level, in which the water continually flows; from this the water is dipped up in buckets, by a contrivance like the rudest well-pole—the Shadoof—which is worked by hand, or by a wheel with buckets—the Sakia—which is turned by a rude cog-wheel apparatus, moved by a buffalo or a camel. Sometimes, where the banks are high, there is a succession of platforms with Shadoofs or Sakias to raise the water from one to another. At the surface it is poured in a trench, from which—as from an artery—smaller trenches branch off at intervals, and usually at right angles, intersecting and irrigating all the adjacent land.

As the whole of Upper Egypt is but a fertile strip—four or five miles wide by as many hundred miles in length—lying upon both sides of the Nile, between two deserts and their mountain boundaries—it is possible in this way to keep the whole country well watered. In the broader parts of the Nile valley canals are cut, into which the water flows when the river rises by the effort of rain in the mountains of Nubia and Abyssinia, and from these canals it is dipped up by the Shadoof and the Sakia, and poured into smaller trenches. In the Delta, or Lower Egypt, below Cairo, the different branches of the Nile, with the aid of artificial canals, suffice to flood the whole country during the season of high water; and in the time of low water, the Shadoof and the Sakia perform here, also, their customary office. It has been computed that there are in Egypt about 40,000 Sakias, or about four to every square mile of cultivation; but this seems to be an over-estimate. The large sugar plantations of the Paaha along the banks of the Nile, as well as the royal and the public gardens at Cairo, are now watered by means of steam forcing-pumps. In Nubia each water-wheel is taxed about fifteen dollars per annum; but there is no tax upon the land. In Egypt the land is taxed about three dollars per acre—which is from ten to fifteen per cent. of its cost—but there is no tax upon the water-wheel.

In this state of things, it was natural that the Shekh, on hearing of the great American Nile, should wish to know the cost of irrigating the country from the river as a first item in his comparison of the two countries. He was surprised to hear that there were no Shadoofs or Sakias on the Mississippi, but that sufficient rain fell to irrigate the land, and seemed to regard this as a great advantage. And so it is: for in Egypt the land-owner must erect his own water-wheels, and, as the land is held or rented in very small lots, the expense of watering it by the toilsome process of the Shadoof is a main item in the cultivation. Frequently three or four neighbors combine and

work the Shadoofs in company, for their common benefit. But, on the other hand, a land of rains requires better building materials than are found in Egypt, and especially shingles, for which this country furnishes no wood, unless the barks and leaves of the palm could be made a substitute. The statement that land could be bought for one dollar twenty-five cents per acre, and held in perpetuity by the purchaser, sounded strangely in a land where the greater part of the soil is held in fee by the Pasha, and can be bought only at from twenty to thirty dollars the acre, subject to a government tax of three dollars.—*Rev. J. Thompson, in Independent.*

For the New England Farmer.

CANKER WORMS.

SIMON BROWN, Esq.:—Dear Sir,—A writer in the *New England Farmer* of the 24th inst., has alluded to the glass collars invented by Mr. George Everett, of Roxbury, and to my use of them. He also expressed a desire to hear from me "on this point, or any other that might profitably be availed of, as a curative for the increase and ravages of canker worms."

Fourteen or fifteen years ago, when canker worms were very plentiful and destructive in this vicinity, the use of tin collars, applied around the trunks of the trees, in the form of inverted funnels, was recommended to prevent the ascent of the female insects. In the autumn of 1852, they were employed in this place by several persons, who have reported favorably concerning them. The feet of the female insects are not provided with suckers or claspers like those of flies; and their structure seems to be such as would necessarily prevent their walking or retaining their foothold, against gravity, beneath a perfectly smooth, polished, and dry surface. Hence, when Mr. Everett first showed to me his glass collars, I was very favorably impressed with the contrivance, and accepted his offer to apply them to some of my trees, in order to test their efficacy. Two of my cherry trees and two small plum trees were provided with glass collars in the autumn of 1853; and these four trees have almost entirely escaped injury; while some other trees in my garden, not protected with collars or with tar, have been more or less seriously injured by canker worms. I do not consider this experiment as conclusive, because there have been some canker worms on the protected trees; those on the cherry trees may have come from two infested elm trees, growing near the fence in a neighboring lot, and so close as to interfere with some of the branches of my two cherry trees; the plum trees, on the contrary, were sufficiently distant from infested trees. Moreover, a friend tells me that he saw a female insect pass over the glass collar on one of his trees last autumn. The glass in all cases may not be sufficiently smooth; or perhaps moisture on the feet of the female or on the glass may enable the insect to stick to the glass. Further experiments in the use of this contrivance seem therefore to be wanting before an unconditional verdict can be given in its favor. It is my intention to apply these glass collars to other trees in my garden next autumn; in the expectation that, if effectual as a preventive to the ascent of the female insect, they will prove in the

course of time cheaper and better than any other remedy hitherto employed.

Applications of tar, or of oil, according to the well-known methods, if made in season, and renewed as often as necessary, have proved good remedies against the depredations of canker worms. My own confidence in them not only remains unimpaired, but is confirmed by continued experience. The use of these remedies is attended with much trouble and considerable expense, against which are to be taken into account the satisfaction and profit arising from the preservation of the foliage, the fruit, and even the continued health of the trees.

In an enumeration of remedies we are not to forget the services of the feathered race. The warblers, buntings and other small birds devour great numbers of canker worms. Even the cherry bird earns a share of our early cherries by the havoc he makes among the canker worms. I wish as much could be said in favor of the robins; but candor obliges me to confess that insects form but a very small portion of their food, while they are unsparing in their attacks upon our cherries. Domestic fowls, if allowed to go at large among the trees during the seasons when the female insects are rising from the ground, devour great numbers of them. During the present summer, some cherry trees growing in a yard where fowls are kept, have entirely escaped the attacks of canker worms; while trees in an adjacent yard from which the fowls were excluded have had their leaves wholly destroyed by the insects.

THADDEUS WILLIAM HARRIS.

Cambridge, June 26, 1854.

A RAY OF LIGHT.

BY AARON SMITH.

A traveller in a weary land,
Benighted on his way,
Lone in a pathless wild did stand,
And wished the break of day.
The moon rose in the eastern sky,
And chased the shades of night;
The traveller raised his thankful eye,
And hailed the ray of light.
A weary heart on life's rough sea
Was sinking in despair;
The waves rolled on remorselessly,
And darkness gathered there.
A prayer went up to Heaven, and love
Poured radiance on the sight;
The heart, reviving, looked above,
And blessed the ray of light.
And so it always is, in life—
Joy's cup is mixed with care;
And spring the noisome weeds of strife
Amid love's blossoms fair.
But mercy glids the darkest scene—
Shines through the dreariest night;
And beauteous is earth's robe of sheen,
When gleams a ray of light.

Mark Lane Express.

SETTING OUT EVERGREENS.—A subscriber says he has had no *luck* in transplanting evergreens, and inquires the best time and mode of doing it. The best time for setting out evergreens is in the spring and fall, when other trees are set out. As for *luck*, that depends upon yourself. We used to have no *luck* in this business, until we found out

that the roots of an evergreen never ought to see *day-light*. It is true that they will live sometimes when the roots have been exposed to sun and air. But they should either be taken up with a good ball of dirt about them or be immediately wrapped up in wet moss or something similar, and so kept until planted again.—*Maine Farmer.*

For the New England Farmer.

HOUSE PAINTING.

The item of painting, paper-hanging and glazing, is no small one in New England, where there is, without question, a more general use of paint than in any other section of the world. Nowhere will you find less unpainted buildings, in proportion to the number, than here. Everybody uses paint,—we are sorry not to be able to except even some of the *sweet heart* confectionary people. All are interested more or less in its cost and preservation. The general subject, with suggestions as to the harmony of colors and the appropriateness of the various hues for the different purposes of use and ornament, will be the subject of these articles.

I need not say to those who understand the subject, that it is one which is usually far too little understood, coming as it does under every day observation, it would seem to be well for all to know its most simple details.

Since the recent extensive manufacture of zinc white as a pigment, there has been great inquiry as to its merits, in comparison with lead. Having given the subject personal attention for the past two years, I am prepared to recommend zinc, because it is not so poisonous, an equal number of pounds will cover more surface equally well, and it is more beautiful. And besides, I know no reason why it is not more durable. There is a mistaken notion, which is very prevalent, that white lead is the *oxide* of lead. It is the *subcarbonate*—*litharge* is the *oxide*, and *red lead* the *deutoxide*, while white zinc, as it is called, is the *oxide* of zinc; and not a carbonate, like white lead.

The drying process is not by evaporation like varnish, but by the absorption of oxygen from the atmosphere. Inexperienced painters frequently complain that zinc does not cover so well as lead; the reason is they use it *too thin*; it has to be mixed apparently thicker and spread on more flowing than lead; so treated, it is more satisfactory, and still not so expensive as lead. The idea has been extensively promulgated, that painting done in the fall of the year, is far better than at any other season. It is easy to see the origin of this notion and the means of its continuance. Painters always have a special rush of work in the spring; all nature is then thawing out of winter quarters. Man feels the renovating influence, and then, if ever, a desire to assist nature in the beautifying processes going on around him, to make improvements and repairs. All want their work done "right off," but they can't all be accommodated at once; the painter must be idle most of the year, or have his work distributed through the season. Some shrewd one starts the idea that it is actually *better* to wait—the economical ones do wait—and the idea is extensively diffused; everybody believes it, and the painter is benefited, and the story has performed its mission. Now the proper time to repaint is, when your

buildings need it; when they begin to *chalk*, for even if there is an advantage, the loss sustained, will, beyond all doubt, more than counterbalance the benefit to be derived by waiting. The best time to paint, is when it will be *thoroughly dry*, before either *very hot* or *very cold* weather; were there no other considerations to be taken into account.

As to color for outside painting, a house with no architectural pretensions may, with propriety, be painted white, or almost any other lively color, but a building, the moulding, cornices, carvings, &c., which are alone ornamental, should not be painted white, or any other brilliant color, because the amount of light reflected, would in a great measure destroy the architectural effect.

SKYLIGHT.

COAL ASHES A REMEDY FOR BUGS ON VINES.

Every discovery which promises to assist the farmer in economising cash or labor is entitled to regard; for, as Poor Richard says—"A penny saved is as good as two pence earned." Some have recommended the application of gypsum or plaster of paris, soot, sulphur, snuff, &c., as a protection for vines against the ravages of the yellow bug; but neither of these has been found efficient in securing the plants from their depredations, and many assert that they are of no service, whatever. Nevertheless, it would seem from the following communication which appeared originally in the columns of the *Boston Cultivator*, over the responsible signature of S. H. SHURTLEFF, that a remedy has at length been found in coal ashes, and that when applied to cucumbers, squashes, melons, etc., it affords an *Ægis* invulnerable to the "striped bug," as well as to the "black bug," which attacks them generally at a more advanced period of growth. We present an extract of Mr. Shurtleff's article, as it is always more satisfactory to the reader, who reads for instruction, to have experimenters relate the results of their experiments in their own words:—

"Last week the 'striped bug' came in showers, on my vines, and in less than two hours the latter were covered with them. It appeared as if they would be devoured. I put on plaster (gypsum) but it did not remove them. I then put on a quantity of coal ashes, about half a pint to a hill, by sifting it on, and in less than an hour not a bug was to be seen. Then, to try the comparative effect of plaster and ashes, I put ashes on one hill and plaster on the next, and so on alternately, and I found in all cases where the ashes were put on, the bugs left, while they remained where the plaster was used.

"I found my melons beset with the small black bug that so often destroys melons and cucumbers. I directed my man to put ashes on them, and I was much pleased to find the insects immediately left them, and they have not re-appeared. I feel confident that the ashes of either hard or soft coal will prove a sure remedy for keeping bugs from the vines; and as they are now considered almost

worthless, I think we shall find that no individual thing is made in vain."

Those who can procure the article would do well to test its value by a trial; a remedy for this evil has long been a desideratum, and we can only hope that, in the above, it has been attained.

A FEW IDEAS ABOUT MILK.

This liquid is secreted in special organs of the female mammalia, for the nourishment of the young, and it necessarily contains all the ingredients required for this object. It contains indissoluble matter held in mechanical suspension. It is a solution of a small quantity of different salts, with a considerable portion of sugar of milk, and a nitrogenous substance named *cheese* or *casein*. A number of small globules of fat of different sizes are suspended in it; they can only be discerned by the microscope. The salts of milk, which amount to about one per cent. of the whole, are the phosphate of lime, phosphate of magnesia, phosphate of iron, chloride of potassium, chloride of sodium and soda. The soda holds the casein in solution. Pure casein is scarcely soluble in water; its combinations with the alkalies, however, are very soluble. The addition of a small quantity of acid separates the soda from the casein, and this makes thickened milk, the curd being no longer in solution with the alkali. Casein is the most abundant substance in the milk.

After the casein is precipitated there is sugar in the remaining liquid or whey; this is the reason why it has a sweeter taste than even sugar milk. This is the only sugar generated in the process of animal life. It requires three parts of boiling water and twice as much cold water to dissolve it. The sugar of the milk is easily converted into lactic acid; it is owing to this quality that the acidity of sour milk is due.

It has been found by experiment that a cow fed upon grass yields a greater quantity of milk than when fed upon any other food. So far as a series of regular experiments afford any data for conclusion, that kind of food which contains the greatest quantity of milk, and the best kind of it, also contains the greatest quantity of butter, and this is not singular, for butter contains nitrogen. It is not a good plan to feed cows on a uniform diet; for experiments have proved that the yield of milk, by such a system of diet, gradually diminishes: it is, therefore, a good rule to change the food of milch cows frequently.

The milk obtained from cows in the morning is generally richer than that obtained at evening. It has been found that certain pasture grounds are much better than others for the production of rich milk. We believe that the subject of good grazing grounds has not received the attention which it demands. There is certainly as much difference in the grass, herbs, &c., in certain pasture lands, as there are in different kinds of food.

As acid is the cause of souring milk, and as the result of it becoming acidulous is a complete separation of the casein from the other parts, it has been suggested that the addition of some alkali, such as soda or saleratus, might render sour milk sweet. The truth is, that the addition of an extra quality of alkali is just about as great an evil as an excess of acid. It is the perfect solution

of the fatty parts of milk with the alkali in it, which imparts that fine flavor to it when newly taken from the animal. If some pearlash be dissolved in warm water, and some pure sweet olive oil be poured into it and well stirred, the liquid will also possess a flavor like that of sweet milk.

In some parts of our country there has been severe droughts this summer, especially in the State of Maine. It is stated that the hay is only half a crop, and that farmers will have to sell a great deal of their stock before the winter sets in. Those of our farmers who have milch cows should use less hay for food than they now do. Cabbages, beans, linseed, barley, potatoes and hay should be given to every milch cow during the winter at the north. These kinds of food can be varied so as to have a change every week. Every farmer should have a steaming apparatus in his barnyard; and plenty of pure air and good drinking water are as necessary as good food, for the health of milch cows and the production of a superior quantity of good milk—*Sci. Amer.*

For the New England Farmer.

CULTURE OF HORSE RADISH.

FRIEND BROWN:—I saw an article recently in your paper by B. H. FRANKLIN, of Worcester, on the cultivation of horse radish, with which I do not feel quite satisfied, and propose to give my mode of cultivation, viz.: Take any good rich land with a deep soil that is suitable for a garden, root crops generally, or a well drained bog meadow that is in a good state of cultivation, and ridge by turning two furrows together 3 feet apart, make smooth by raking, if necessary, and plant the seed 15 inches instead of 2 feet apart; some cultivators put it nearer both ways.

The after cultivation consists in keeping the ground light and clear from weeds in any way that best suits the cultivator. I prepare my seed early in the spring, by taking roots $\frac{1}{4}$ of an inch in diameter, and cutting in pieces one inch long; wash clean and rub off all fibrous roots, and then cover them up in the ground until the sprouts are an inch long, and previous to planting, rub off all but the best one. The reason for this operation is, that you will have less small roots; consequently more large ones.

For the cultivation of horse radish generally, dig late in the fall, all that is wanted for winter use, and let the rest remain in the ground for spring, as it is not easy to keep it well in dry cellars.

Yours, B. F. CUTTER.

Pelham, N. H., 1854.

For the New England Farmer.

ESSEX COUNTY.

The annual address before the *Essex Agricultural Society* will be delivered by Prof. E. A. PARK, of Andover. This Society has uniformly chosen their orator within their own limits; and we believe about one third of the number chosen have been clergymen. Among this number we remember Dr. EATON, of Boxford, Dr. PERRY, of Bradford, Dr. ABBOTT, of Andover, Dr. BAZMAN, of Danvers, Dr. COLMAN—all of whom succeeded in giving sound instruction to the farmer. Indeed, as a class, clergymen are rendering the cause of agriculture more important aid than any

of the other "professions." Many of them are not only conducting the operations of the garden, but those of the farm, with signal success. Well may many of us look to them for examples even in field culture.

For the New England Farmer.

FARMING IN OHIO.

Two years since, I requested a sample of your papers with which you were kind enough to favor me, and with which I was so well pleased that I ordered the monthly, whose visits since have been as regular as the changes of the moon, and whose contents have afforded me no little satisfaction, and I trust profit.

I have often thought your teachings might benefit some of the farmers in this vicinity, and have sometimes been half tempted to make an effort in your behalf, but when I reflected on the ungentlemanly rebuffs I have been subjected to in soliciting names for papers of less magnitude and less price, my zeal has abated and my heart failed me. Who can be so extravagant as to suppose that an economical farmer will pay out a whole dollar a year for a paper that is to counsel and advise him in his own "peculiar" occupations? Yet these same men—some of them at least—can pay twice or thrice as much for worthless things containing miserable daubs, by some called comic pictures, and trashy reading that no sensible reflecting man would read himself, or furnish his family to read. Ask these men to become members of an agricultural society, and with uplifted hands expressing "holy horror" they exclaim it is a gambling institution! Watch them a moment. The first doggery they reach they are ready to "sky a copper," or odd and even for the "scoots." Satan rebuking sin. If our agricultural societies would agree to "stand treat" to all unsuccessful competitors, they would no doubt add many to their numbers though perhaps not much to their respectability. Such men are not scarce in these "diggings" yet; but thanks to the energy of better men in diffusing information and introducing improvements, their numbers are annually growing "beautifully less."

We have quite a flourishing society in this place, that has seen five summers, which we think has already been the means of doing much good. There are some Durhams among us that would do no discredit to Old England, besides a handsome sprinkling of Devon blood. We have some Suffolk pigs that we are disposed to think are about the right stripe, although they are not "striped pigs." Of horses there are some good ones, as well as some that need not be praised. There are representatives of several varieties of sheep, Leicesters, South Downs, and Merinos, with and without the Cornwall and other finishes. We have some fine biddies too, among them, some of them tall fellows that took such a shocking bad cold coming across the big water. Besides the stock enumerated we have some railroad stock among us, and though I do not much approve of fast nags, still there are animals belonging to that stock that are somewhat noted for their speed, and if you should take a notion to ride out here some pleasant afternoon—provided you can get a pass at Erie—though some of us still live in rather a "primitive style," you may be sure of a hearty welcome for we always

leave the "latch string out." You have really "*par nobile fratrum*" in your associates.

Cannot Mr. Holbrook be induced to give us some such sketches of farms and farming as he did a few years since in the *Albany Cultivator*. To my mind there is no agricultural reading of more benefit to the young farmer and to men who have left other occupations and become tillers of the soil. There is no stimulus like good examples. Let us have them, that others seeing their "good works" may "go and do likewise." We have heard much during the last few years about Terra Culture. Of that I know but little. But when I see an enormous hole, the full width and depth of a spade, excavated to receive a fruit tree six feet in height, into which the refractory roots are forced by the application of the nether portion of a coarse boot, I think if that tree could speak, its first theme for a discourse would be *Terror Culture*. When I see as I have seen, the plow run as near the rows of corn after it has siled as it can be without tearing it up, and as deep as a horse can draw it, I think surely if that corn could speak, its first words would be *Terror Culture*. Lest you should be terrified at the length of this talk, I close, giving you the same privilege the Paddy did his friend, to read it or not.

Yours, J. D. BURDITT.

Norwalk, Ohio, 1854.

REMARKS.—Keep on, friend Burditt, in the good cause, with a brave heart. Those men who now "sky a copper," cannot all of them resist your influences—some of them will come over to you and be as active as sky-larks yet. We hope to hear from you again.

For the New England Farmer.

WHAT NEXT?

It is said the Indians have sown powder, expecting to raise their own ammunition; but what an amusing story here is, for which the *Poughkeepsie Journal* stands responsible.

B.

A RÆCUE.—Not long since, while passing near a sand bank, we saw a little boy shovelling sand with all his might, and upon nearer approach discovered two legs projecting upward, the body almost buried out of sight. We were alarmed at such a spectacle, and lost no time in dragging the little fellow from his perilous position, nearly exhausted, where he could not have remained much longer without perishing. After the excitement had partially abated, we heard from the boys the pitiful reason for the act. It appeared there had been three playmates, who had spent most of their time together; that one had removed to another part of the village, leaving these two to pass their play hours in what they considered solitude. In order to remedy this, they formed a plan to increase their number. It appeared simple to them. One was to be planted, leaving his legs out of the ground, from which two boys would grow and restore their former number. The one planted, had volunteered to be the victim of transformation. His part was to dig the hole and crawl in, and the other to cover him up. At first they were indignant at our interference, but after a familiar dissertation on cause and effect, the boys became reconciled to us, and promised they

would never again undertake this kind of horticulture.

For the New England Farmer.

HOW TO FIND WATER.

MR. EDITOR:—About a year ago, a stranger came here and passed the night, and in the course of the evening he said that his business had been that of digging wells, and that he could by means of the rod, tell where to dig for water, and how far it was to it. We did not believe it, and in the morning he said he would try it. So in the morning he got a rod and went into the road and walked along, holding the rod in his hands, the palm of his hands being turned up. He had not gone but a few steps when the rod began to turn down till it pointed perpendicularly to the ground; he then said he would trace the vein and see where it went to—and he traced it directly to the house where there was a well, but entirely covered up, so that there were no signs of a well there, the pump being taken out. And then we began to believe there was something in it. My father took the rod and held it in the same position and passed over the vein and it had no effect at all. Then I tried it, and to my utter astonishment the rod worked in my hands as well as it did in the stranger's. I held the rod as tight as I could grasp it, and it would turn down, wrenching the bark from the rod. Last August I thought I would dig in the pasture where the rod indicated there was water. I dug about seven feet and came to a good spring of water; the surface of the ground where I dug was dry, and gave no appearance of water. One of my neighbors had dug a well a year or two before, for the purpose of supplying his cattle with water, and found but little, and he wished me to go and see where he could dig and find a good spring. I went and found that he had dug within about eight feet of a vein. He went to work and dug about eight or nine feet, and found a good supply of water. I have seen a great many persons try it, but the rod would not work in their hands. I use a crooked stick, the prongs being about two feet long. Sweet apple, black cherry, or peach rods are as good as witch hazel, and I believe point out passages of water in the ground if held in certain persons' hands. Why they will not work in every one's hands I am unable to tell.

Jamaica, Vt., 1854.

E. N. C.

"BLINDS" ON HORSES.

In passing through this city, I have seen many fine horses, some of which must be getting blind from the cruelty of their drivers; not by whipping or starving, but from the manner in which blinders, so termed, are used. No horse can have good eye-sight after wearing these unnecessary appendages for a length of time, as I have seen them, so closely drawn together in front as to rub or chafe the eye-lids. It is hurtful to have them, worn as they usually are, thrown out an inch or so from the eye. If they must be worn, it would be much better to set them out, at an angle of forty-five degrees or more, from a right line with a side of the face. It would, however, be still better if they were not worn at all.

A horse will soon get accustomed to all that he can see, as not to be any more easily frightened

without them than he is with them by the sense of hearing. He is too valuable an animal for us to be careless of his health and comfort, too noble a gift to be so misused as to lessen his own innate worth, to say nothing of his commercial value.

I have charged this as a cruelty coming from the drivers, because they can easily remedy the matter. It is not my intention to assert, that wrong in this matter is so by the choice of these men. It would be as much as saying that they, as a class, are destitute of all the kindly feelings of humanity.

These remarks are not intended to apply to the city more than to the country, for these cruelties are practised in the latter place quite as much as in the former.—*Corres. American Agriculturist.*

A LOFTY CATERACT.

Capt. Walker, of the U. S. Surveying Expedition, gives the following account, in the *San Diego Herald*, of a wonderful cataract which he discovered in his explorations:—

"On the Upper Virgin river are two very remarkable falls. One of them, two hundred miles from its mouth, is the most stupendous cataract in the world; it falls in an almost unbroken sheet a distance of full one thousand feet! The river some distance above, traverses a pretty timbered valley, and then runs through a close kenyon. Here the current becomes rapid. The mountains seem to run directly across the river. At the fall the stream is narrowed to thirty or forty yards—while the kenyon rises on either side in almost perpendicular cliffs to a height of two hundred feet. The pent up stream rushes on to the brink of the precipice, leaps over the falls with scarce a break into the vast abyss below.

About thirty miles above, there is another magnificent fall. Here the river plunges over the cliff, falls a distance of two or three hundred feet, and breaks into a myriad of fragments upon a projecting ledge beneath. Although the fall is not so great as the other, it is more picturesque, from the multitude of smaller cataracts into which it is divided by the rocks."

A CURIOUS STRUCTURE.

The nest of a tarantula (spider) has been found in California, of most singular construction. It is about three inches in length, by two in diameter, built of adobes, the walls being nearly half an inch thick. Inside is a projection, which nearly divides into two apartments about an inch in diameter. The inside is lined with a downy substance, not unlike velvet, and presents one of the cleanest and most tidy little households imaginable. But the most curious part of it is a door, which fits an aperture and closes hermetically. The door is secured by a hinge, formed of the same fibrous substance as the lining of the house, and upon which it swings with freedom. The next is occupied by a dozen little tarantulas, which seem to subsist upon a yellow secreted substance that appears on the walls of the front apartment. The arrangement of the door for the protection of the little inmates, indicates great instinctive architectural knowledge. It is the intention of the finder to forward this curiosity to the Smithsonian institute at Washington.

For the New England Farmer.

USE OF GUANO.

MR. EDITOR:—Some notice was taken in your paper, the last season, of an unsuccessful application of *guano* to land sown with grass seed, which came up well at first, but did not mature sufficiently to be worth cutting. The field has remained in the hope of a better result—but with little prospect of it. The present appearance is, that no benefit whatever, will result from the *guano* applied. I saw the field a few days since, and am satisfied that there was some mistake about the dressing or mode of applying it.

Another field has recently come to my notice, where about 200 lbs. of *guano* was applied to the acre about the first of April. It was dissolved in urine, collected under the stalls of the stable, and spread upon the land, from the cask set upon wheels, such as is sometimes used for the watering of streets. The growth of grass, however, is luxuriant,—not less than three tons to the acre, for the first cutting. How much of this is to be credited to the *guano* account is matter of conjecture—but I think, not less than *ten pounds* of hay to one of *guano*—which is pretty well for first experiment.

Having stated the failure in one case, I thought it but fair to state the result in the other.

The last season, I heard considerable said of a preparation of bones for fertilizing uses by Prof. Horsford of Cambridge, and saw some specimens distributed for trial, but have heard nothing of it the present season. Can you tell me, and the public, what is to be expected from this source.

June 26, 1854.

For the New England Farmer.

TIME FOR TRANSPLANTING FRUIT TREES.

One of my first lessons in Horticulture was, that *stone-fruit trees*, should be transplanted in the Spring, but that other trees would do equally well in autumn, if not better. Mr. Cole (author of the *Fruit Book*) once told me that peach trees, even, if planted in the fall, would do quite as well as if planted in the spring. To some extent I have acted on his suggestion, when convenient, but my success has been poor. In more favorable latitudes, tender fruit trees and all rapidly growing forest trees, perhaps, will do well planted in the fall. But in Massachusetts these trees live through our hard winters only by virtue of their tenacity to the soil, which keeps up the temperature of the stocks and enables them to resist a frost which if loosened by fall planting, would probably prove fatal to them. It is reasonable to suppose that a sudden check of the sap in rapidly growing trees, or a diminution of its quantity, previous to a hard winter, must be detrimental.

A few years ago I planted in autumn a dozen or fifteen small silver-leaf maples—very rapidly growing trees—but they were nearly all winter-killed. About a dozen peach trees which I set last fall, look now as if they were dead, and they will probably not show much disposition to rally for some weeks, if they do at all. Of all trees, the peach seems to be the most affected when planted in autumn. My experience teaches me, also, that the spring is the best time for plums. Apples and pears, however, do very well in the fall; and

if well planted, with some compost in the hole, which will well decompose in the winter, it may be the best season.

When rapidly growing trees are planted in the spring, it is important that they be taken up early before the buds swell, and healed in, or kept in some damp place, till convenient to set them out.

Hardy, slow-growing trees, when planted in autumn, require less mulching than when planted in the spring; and this fact furnishes one reason for fall planting, all other things being favorable. If a tree has grown very rapidly the previous season, I should prefer to transplant it in the spring.

In regard to heading in at transplanting, I think all superfluous limbs should be taken off; but no more, under ordinary circumstances. Of a dozen large pear trees set last fall, brought from western New York, some were headed down this spring and grafted with better sorts; but those not liberally trimmed threw out buds as soon as the others. The scions did not take, as was partially anticipated—the branches being cut off with a view of saving the tree.

D. W. L.

West Medford, June 17, 1854.

REMARKS.—Our own experience in transplanting fruit trees has been much like that of "D. W. L."

For the New England Farmer.

CHINESE FOR FARMERS OR GARDENERS.

Some months since, an interesting article, on the subject of "Chinese Manures," was published in the *Farmer*, in reply to my inquiries, written by the Rev. Mr. Syle, who spent several years in China, as a missionary. I have just received a letter from him, dated New York, July 7th, in which, alluding to my interest in the agriculture of the Chinese, he says:

"Allow me to inquire whether your interest extends from their agriculture to the Chinese themselves, and whether you would like a little company of them to work together on your farm. If so, I think you could be suited, for I find here in this city some eighteen or twenty Chinese, who I think could be induced to engage themselves as husbandmen, gardeners, &c., and that too at a rate of wages which might be considered quite low in this country. For the last few weeks I have been a good deal among the Chinese who have found their way here—indeed I have been invited to act as a sort of Home Missionary among them—and much they needed some one to give them a helping hand, for they have been shamefully imposed upon in this Christian country.

But to return to my suggestion; if it falls in with your views, I should be glad to hear from you at once stating how many you would like to take charge of, and on what terms.

I am, Sir,

Yours very truly,

E. M. SYLE."

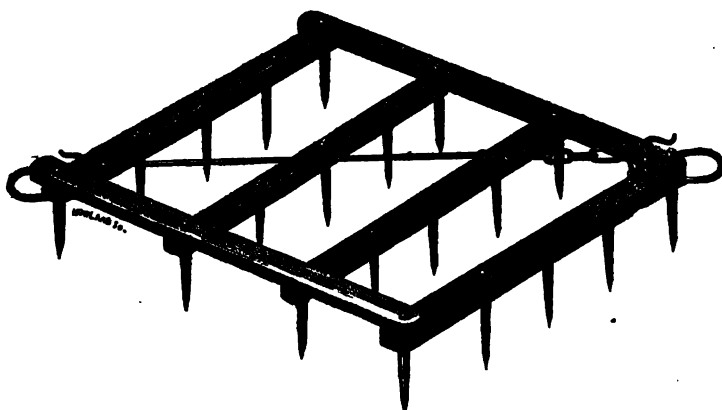
Being unable myself to employ any of these people, I take the liberty of publishing the above extract of a private letter, in the hope that some of the farmers and gardeners in the vicinity of Boston will be induced to take a "little company" of these "Celestial" strangers, who in coming to this Christian country have unfortunately fallen

among thieves, rather than friends. Mr. Syle found them in a deplorable condition, at sailor boarding-houses, &c.

To say nothing of the novelty of the thing, or of the inducement of low wages, I really believe there is an opportunity here of doing good at a cheap rate. For the credit of our country, our benevolence, our Christianity, these strangers

surely ought not to be abandoned to the lowest specimens of our "civilization," which a great city affords.

I will take the further liberty of requesting those who feel disposed to employ any of these men to communicate directly with the Rev. E. W. Syle, 53 Broadway, New York. S. FLETCHER.
Winchester, July 13, 1854.



THE EXPANDING AND REVERSABLE HARROW.

The expanding and Reversible Harrow is so constructed as to admit of being widened or narrowed, to do coarser or finer work, as circumstances may require. The two bars on top of the frame work, are connected with the four under bars by the outside teeth, the upper parts of which are rounded and shouldered, with nuts and screws on the top, and on which the entire frame swivels or turns in expanding and contracting, which is done simply by shortening or lengthening the chain on the top. Thus the harrow is made any desirable width, and any degree of fineness, while the teeth in every position operate independently of each other. The harrow is constructed to be drawn either end forward, so as to secure sharp teeth, and is folded completely together for transportation. Various sizes, made heavier or lighter, are supplied to order.

ASHES ON POTATOES.—*More Evidence of Value.*—Our readers may remember that Mr. Barret, of Cayuga, published a statement that he and his neighbors had prevented all rot in their potatoes for several years, by sowing ashes over them, at the rate of from two to three bushels per acre, once a week for six weeks, commencing immediately after the second hoeing. Rev. Lyman Smith, of Charlotte, Vt., confirms this statement in a letter to the *N. E. Farmer*. He says he has prevented the rotting of potatoes by sprinkling the tops with ashes as soon as they made their appearance, a table-spoonful to each hill; after hoeing, applying the same amount again. The ashes were applied immediately after a shower, or upon a heavy dew. After such applications, he has no rotten potatoes.—*Count. Gent.*

For the New England Farmer.

SWINE.

There is but little of the Jewish blood in our veins, or Mohammedan faith in our hearts, yet perhaps the most devoted Mussulman would fail in the attempt to show a more striking proof of his aversion to swine, than is given by the "hired help" and boys of many a yankee farmer.

True, there is little that is engaging in a hog's manners, or amiable in his disposition, or inviting in his appearance, yet we cannot conceive why his ill-nature should make him the most abused of all domestic animals.

He is not made more tractable, nor more profitable, by the kicks and pelts he receives. His stubbornness is not overcome, by being compelled to fast through the day, because it may not be convenient to feed him. His thrift is not promoted by being kept in cold weather, in some cold, dark, damp place, with the bare planks, or the planks covered with ice, for his bed. His porker qualities are not increased by being compelled, some dozen times a day, to perform the feat of leaping some 4 to 6 feet, from pen to yard and yard to pen; and all this merely because he is "nothing but a hog." Men complain of his filthy appearance, yet keep him where nothing else can live, yet, reflect not that he will thrive well while filling the same place among farm laborers that scavengers do in city governments. The unsightly brake, the withered fruit and refuse roots, are to him a luxury, yet a luxury of which the indolence or neglect of his owner often deprives him. The cry—"the hogs are out"—is often raised on farming premises, and harsh maledictions are poured upon the head of poor pig for uprooting his fence, when in fact, the hog was merely giving a practical illustration of what use he might be, would his master but furnish the materials, such as muck, leaves, &c.

Swine, like all other domestic animals, must be

well cared for and well treated to be profitable, and when so treated, their industry, their thrift and improved appearance, will "preach humanity to man."

The longest count in the charge against the hog, is that "the mothers neglect or ill-treat their offspring." In answer to this charge, I reply that "like begets like." If we treat our hogs as monsters, not to be approached without the bestowal of kicks and blows, we should not complain of their being what our cruelty has made them. Let the same course be pursued with swine as with neat stock, let them be carded and handled, well fed and kindly treated, and then if they are so unnatural as to slay their young, we will let sentence of "guilty" be passed upon them and abandon them to their fate—death by the butcher.

For twenty-five years we have known but one cross hog, yet have reared more or less pigs every spring, and our experience is that there is no more uncertainty about raising pigs (the general complaint to the contrary notwithstanding) than in rearing any other stock.

With me, hogs are among the most profitable animals on the farm; yielding a triple income—the slaughtered porker, the young pigs, and last, yet not least, their valuable services in the manure yard.

Chester, N. H., June, 1854.

IRON HOUSES.

A friend of ours who is building a tenement, complained, not long ago, that he found it difficult to obtain such lumber as he wished for the purpose, adding, "I never thought there would be any trouble here in obtaining any kind of lumber that one wanted; what will folks do when the lumber is all gone?" "Build iron houses," said we. "There is iron enough in different sections of the State, to build houses for hundreds of years." "Yes," said he, "and it will be thousands of years before they will build anything of the kind here."

Now we do not see why, even at the present moment, iron houses cannot be built as cheap in Maine, as in some other States. We have iron enough—we have wood enough to heat the furnaces to smelt it, and lime enough to make flux to facilitate its reduction from the ore to a metallic state. All, therefore, that is wanted, is, capital to start the business, enterprise enough to begin it, and faith enough to carry it out to success.

We see in the *N. Y. Leader*, a glowing account of building iron houses, by Mr. Sexton, of Brooklyn, N. Y.

We make a few extracts from this account in order to shew our readers how much this mode of building houses has advanced.

Mr. S. constructs the frame-work of his building entirely of cast iron, in sections which are made to interlock by very close fitting, and ingenious joints secured by keys. This mode of fitting avoids the labor of drilling and bolting which has been a great inconvenience of iron buildings.

The frame work he covers on the outside with plates of iron, by a similar system of interlocking without any bolts or other fastenings—the joints

being packed with gutta percha, so as to exclude water under hydraulic pressure.

To finish the dovetailing of the joints, he has invented a machine that performs the work of forty men. The walls are made hollow, and the enclosed space is filled with a non-conducting composition of beach sand, and other substances, so that when finished they become perfectly fire-proof.

The roof and floor are made of cast iron frames, resembling heavy window sashes, the interstices being occupied with plates of glass of any required thickness. This glass, it is stated, is not our common glass, but a new kind called malleable glass, from its wonderful property of toughness, it bending freely without breaking.

It also asserts that this glass can be drawn out into threads of any fineness, and so tough and flexible that they are about commencing the manufacture of piano and violin strings from the same material.

A string of this glass was exhibited to the writer, who says it was as small as the E string of a violin, and could be bent around the finger like catgut.

Plates of this glass being let into the frame work of the floors, the whole is then covered over with a peculiar transparent cement of Mr. Sexton's invention, which makes the floor look like one solid plate of glass. The cost of roofing with this material, is 75 cents per square foot. The walls inside can be covered with plaster, or finished with iron or glass at the option of the builder.

All the interior ornamental work, such as mantle pieces, panels, &c., may be made of this malleable glass.

This looks like an expensive mode of building houses, but yet it is comparatively cheaper than many other modes adopted. Mr. Sexton sums up the advantages of his mode as follows:

1. Its great cheapness and rapidity with which it allows construction, it effecting a saving of one-third in labor over any other mode. He could construct an ordinary house in 40 days.
2. The variety of style and finish that can be obtained at small cost, by different combinations of the same patterns.
3. The facility with which such a building can be taken down and removed.
4. Its security from damage by fire or lightning, thus saving insurance.
5. Its durability, freedom from vermin, &c.—*Maine Farmer.*

AMOUNT OF LIME CARRIED OFF BY VARIOUS CROPS.
—It is calculated that the amount of lime carried off the soil by ten bushels of grain and the straw on which it is grown is as follows:

10 bush. Wheat and the Straw,.....	5.18 lbs.
10 do. Rye do.	6.47 "
10 do. Corn do.	6.14 "
10 do. Barley do.	4.84 "
10 do. Oats do.	3.87 "
10 do. Field Peas do.	4.74 "
2000 pounds of potatoes.....	1.03 "
2000 pounds of turnips and tops,.....	5.92 "
2000 pounds of flax.....	14.55 "
2000 pounds of red clover,.....	43.77 "
2000 pounds meadow hay,.....	22.95 "
2000 pounds of cabbage,.....	9.45 "

The way to gain a good reputation, is to endeavor to be what you desire to appear.

FEEDING OF ANIMALS.

On the feeding of animals.—Main visible functions of the living animal.—The food must supply the wants of respiration.—Nature, wants, and purposes of this function.—The daily waste of the muscular parts and tissues of the body.—Food necessary to repair it.—Saline and earthy matters contained in its several parts, and daily rejected by the body.—Waste or increase of fat supplied by the food.—Special waste in the perspiration.—Forms in which the solid matter of the tissues escape in the urine of animals.—General balance of food and excretions.—Kind of food required, as indicated by the composition of the blood.—Importance of a mixed food.

The food of plants we have seen to consist essentially of two kinds, the *organic* and the *inorganic*, both of which are equally necessary to the living vegetable—equally indispensable to its healthy growth. A glance at the purposes served by plants in the feeding of animals, not only confirms this view, but throws also additional light upon the kind of inorganic food which plants must be able to procure, in order that they may be fitted to fulfil their assigned purpose in the economy of nature.

MAIN VISIBLE FUNCTIONS OF LIVING ANIMALS.

Man, and all domestic animals, may be supported, may even be fattened, upon vegetable food alone. Vegetables, therefore, must contain all the substances which are necessary to build up the several parts of animal bodies, and to supply the waste attendant upon the performance of the necessary functions of animal life.

All living animals perform three main or leading functions necessary to the continuance of healthy life.

1. They *breathe*, alternately inhaling and exhaling air by means of the lungs.

2. They *digest*, dissolving the food in the stomach, and selecting from it the materials necessary to form blood.

3. They *excrete*, rejecting in the solid excretions and the urine, or giving off from the skin and the lungs—

a. That part of the food which cannot be dissolved and made use of as it passes through the alimentary canal.

b. The materials derived from the decomposed tissues or parts of the body which are undergoing a constant waste.

To the wants of an animal performing these visible functions in a healthy and regular manner, the food must be adapted in kind and quantity. I shall briefly illustrate what these wants demand.

To the numerous minor and invisible functions performed within the several parts of the living body, it is unnecessary to advert in detail. I may have occasion incidentally to advert to one or two of the more interesting of these; but as a healthy blood contains all that is necessary to the discharge of these functions, it would only complicate our present inquiry to consider their several direct relations to the undigested food as it is introduced to the stomach.

THE FOOD MUST SUPPLY THE WANTS OF RESPIRATION.—NATURE, WANTS, AND PURPOSES OF THIS FUNCTION.

While an animal lives it breathes. It alternately draws in and throws out atmospheric air by means of its lungs.

1. When this air enters, it contains about two gallons of carbonic acid in every 5000; when it escapes from the lungs it contains 2 gallons or up-

wards in every 100. The proportion is increased from 50 to 100 times. Much carbonic acid, therefore, is given off from the lungs of animals during breathing. In other words, living animals are continually throwing off carbon into the air, since carbonic acid contains about two-sevenths of its weight of solid carbon.

A man of sedentary habits, or whose occupation requires little bodily exertion, may throw off in this way about five ounces of carbon in twenty-four hours—one who takes moderate exercise, about 8 ounces—and one who has to undergo violent bodily exertion, from 12 to 15 ounces. In our climate about one-fifth more is given off in summer than in winter.

If we take the mean quantity respired at 8 ounces, then, to supply this carbon alone, a man must eat 18 ounces of starch and sugar every day.* If he take it in the form of wheaten bread, he will require 1½ lb. of bread; if in the form of potatoes, about 7½ lbs. of raw potatoes to supply the carbon which escapes through his respiratory organs alone.

When the habits are sedentary, 5 lbs. of potatoes may be sufficient; when violent and continued exercise is taken, 12 to 15 lbs. may be too little. At the same time, it must be observed that when the supply is less, either the quantity of carbon given off will be less also, or the deficiency will be supplied at the expense of the body itself, especially its fatty part. In either case the strength will be impaired, and increased supplies of nourishing food will be required to recruit the exhausted frame.

Other animals give off from their lungs quantities of carbon proportioned to their weights. A cow or a horse, eight or ten times the weight of a man, will give off 4 to 5 lbs. of carbon. The quantity of food required to supply this carbon will be proportionably greater.

I have in the above calculations supposed that the whole of the carbon given off from the lungs is derived from the starch, sugar, or gum of the food. This view is the simplest, and most easily intelligible. It only requires us to suppose that in the system the starch is separated into carbon and water, of which, as we have seen, (p. 43,) it may be represented to consist; and that the former is given or burned off from the lungs in the form of carbonic acid. But many physiologists do not regard the process as being really so very simple. They consider that the carbon given off is partly derived from the gluten or flesh of the food, as well as from the starch or fat—in which case the quantity of starch or sugar in the food, as I have calculated it, need not be so large; and it is certain that where animals live on food which contains no starch or sugar, and but little fat, the gluten or fleshy fibre it contains must yield the carbon which is given off by the lungs.

2. But when the air escapes from the mouth of a breathing animal, it contains much moisture also. It enters comparatively dry, it comes out so moist as readily to deposit dew upon any cold surface, or to form a white mist in a wintry atmosphere. This water is given off by the lungs, along with the carbonic acid, and, like it, is derived from the food, solid or liquid, which has been introduced into the stomach. It may either be part of the water which has been swallowed as such, or the water which may be supposed to

exist in the starch and sugar of the food. Or it may be water formed by the union of the hydrogen of the other kinds of food with the oxygen inhaled by the lungs. It is probably derived in part from each of these sources, in proportions which must vary with many circumstances.

3. But the lungs actually feed the body. The air which enters contains more oxygen than when it returns again from the lungs. The oxygen which disappears equals in bulk very nearly that of the carbonic acid which is evolved. This oxygen enters the lungs, through them into the blood, and with the blood flows on and circulates through the body. It also enters partly into the composition of the tissues, so that it is a real food, and is as necessary to the construction of the human body as the other forms of food which are usually introduced into the stomach. The weight of oxygen taken up by the lungs exceeds considerably that of all the dry solid food which is introduced into the stomach of a healthy man.

4. The purposes served by the oxygen thus introduced into the system are very difficult and complicated. But an incidental circumstance, which accompanies all its operations in the system, is the evolution of heat. From the time the solid digestible food enters the blood till it escapes from the lungs, or in the other excretions, it is continually uniting with oxygen into new forms of combination, and at each change heat is produced or given off. Thus the animal heat is kept up, and thus it is, in a certain sense, correct to say that oxygen is taken in by the lungs for the purpose of giving warmth to the body,—or, more poetically, that the body is a lamp fed with oil from the stomach, and with air from the lungs, which burns with a slow and invisible flame, but which ever does burn while life lasts, and maintains a gentle warmth through all its parts.

THE FOOD MUST REPAIR THE DAILY WASTE OF THE MUSCULAR PARTS AND TISSUES OF THE BODY.

From every part of the growing as well as of the full-grown body, a portion is daily abstracted by natural processes, and rejected either through the lungs and skin, or in the solid and fluid excretions. This proportion is so great that in summer the body loses one-fourteenth, and in winter one-twelfth of its weight daily, when no food is taken. And if food be continuously withheld, the mean duration of life is only fourteen days, and the weight diminishes two-fifths. But the waste or change of material proceeds more rapidly when the animal is well fed, so that the opinion now prevails among physiologists that every twenty or thirty days the greater part of the matter of the human body, when adequately fed, is constantly renewed. This waste of the tissues is more rapid in women than in children, in men than in women, and most of all in men between the ages of 30 and 40. The amount of waste is the measure of life.

The materials for this change must be supplied by the food. And the quantities required must be adapted to the nature, age, and sex of the animal.

The muscles of animals, of which lean beef and mutton are examples, are generally colored by blood; but when washed with water for a length of time, they become quite white, and, with the exception of a little fat, are found to consist of a

white fibrous substance, to which the name of *fibrin* has been given by chemists. The clot of the blood consists chiefly of the same substance; while skin, hair, horn, and the organic part of the bones, are composed of varieties of *gelatine*. This latter substance is familiarly known in the form of *glue*, and though it differs in its sensible properties, it is remarkably similar to *fibrin* in its elementary composition, as well as to the white of the egg, (*albumen*), to the curd of milk, (*casein*) and to the *gluten* of flour. They all contain nitrogen, and the three latter consist of the four organic elementary bodies very nearly in the following proportions:

Carbon,	-	-	-	-	-	55
Hydrogen,	-	-	-	-	-	7
Nitrogen,	-	-	-	-	-	16
Oxygen, with a little sulphur and phosphorus,	-	-	-	-	-	22
						100

Gelatine or dry glue contains about 2 per cent. more nitrogen.

The quantity of one or other of these substances removed from the body in 24 hours, either in the perspiration, or in the excretions, amount to *about five ounces*, containing 350 grains of nitrogen; and this waste *at least* must be made up by the gluten, fibrin, or other protein compounds of the food.

In the 1½ lb. of wheaten bread, supposed in the previous section to be eaten to supply the carbon given off by the lungs, there will be contained also about 3 ounces of *gluten*—a substance nearly identical with *fibrin*, and capable of taking its place in the animal body. Let the other two ounces which are necessary to supply the daily waste of muscle, &c., be made up in beef, of which half a pound contains 2 ounces of dry fibrin, and we have—

	For respiration	For waste of muscle, &c.
1½ lb. of bread yielding	18 oz. starch and 3 oz. of gluten.	3 oz. of fibrin.
8 oz. of beef yielding	..	2 oz. of fibrin.

Total consumed by respiration and the ordinary waste. } 18 oz. starch and 5 oz. { gluten or fibrin.

If, again, the 7½ lbs. of potatoes be eaten, then in these are contained about 2½ ounces of gluten or albumen, so that there remain 2½ ounces to be supplied by beef, eggs, milk, or cheese.

The reader, therefore, will understand why a diet, which will keep up the human strength, is easiest compounded of a mixture of vegetable and animal food. It is not merely that such a mixture is more agreeable to the palate, or even that it is absolutely necessary—for, as already observed, the strength may be fully maintained by vegetable food alone;—it is because, without animal food in one form or another, so large a bulk of the more common varieties of vegetable food requires to be consumed in order to supply the requisite quantity of nitrogen in the form of gluten, albumen, &c. Of ordinary wheaten bread alone, about 3 lbs. daily must be eaten to supply the nitrogen,† and there would then be a considerable waste of carbon in the form of starch, by which the stomach would be overloaded, and which, not being worked up by respiration, would pass off in the excretions. The wants of the body would be equally supplied, and with more ease, by 1½ lb. of bread, and 4 ounces of cheese.

Oatmeal, again, contains at least one-half more nitrogen than the wheaten flour of our climate and hence 2 lbs. of it will usually go as far

in supplying this portion of the natural waste as 3 lbs. of wheaten flour, and the stomach will be less oppressed. This fact throws much light on the use and value of what has been called the natural food of Scotland.

The stomach and other digestive apparatus of our domestic animals are of larger dimensions, and they are able, therefore, to contain with ease as much vegetable food, of almost any wholesome variety, as will supply them with the quantity of nitrogen they may require. Yet every feeder of stock knows that the addition of a small portion of oil-cake, or of bean-meal, substances rich in nitrogen, will not only fatten an animal more speedily, but will also save a large *bulk* of other kinds of food.

* Since 12 lbs. of starch contain about 5 lbs. of carbon.

† The dry flour being supposed to contain 15 per cent. of dry gluten, (a large proportion,) on which supposition all the above calculations are made.

HARVESTING GRAIN.

It would seem to be almost superfluous at this late day, to urge upon our farmers the importance of cutting grain before it becomes fully ripe; yet notwithstanding the numerous articles which have been written and published on this subject, and the very decided convictions expressed by the most judicious millers and grain dealers in favor of early harvesting—especially where the grain is intended for bread-making or flouring—there are many who still adhere to the old practice, and will by no means allow their crops to be harvested, till the grain is fully ripe. Prejudice is a tyrannical master, and no class of the community appear to be more fully under its control than our agricultural class. In New York, and, indeed, in all the wheat growing States, the practice of cutting this grain before it is dead ripe prevails universally. The exact time when it should be harvested, is now, with the grain-producing part of the community, no longer a matter of doubt or speculation; all being fully convinced that the right period is indicated by that change which the grain experiences when passing from its milky state to that of complete hardness, and when the kernels, without being “sticky,” are yet sufficiently hard to resist the pressure of the thumb and finger. The farina of the grain being perfected, all that is necessary to render it fit for flouring is the hardening of the mass; and this, it is fully established, may be as well perfected after the straw has been cut as before. Beside, grain that is allowed to stand till it is fully or dead ripe, makes darker flour, and is not so heavy; it scatters in harvesting, and does not command so high a price in our markets or so ready a sale. The straw of grain, when it is cut before the period of perfect maturity, is also much more valuable; it possesses a degree of succulence and saccharine sweetness which renders it a good food for stock; a use to which the straw that has stood in the fields till it has become dead or perfectly matured can never be applied.

I have cut oats when the straw was just turning from its green to its golden hue, and have found the grain as plump and full, and far brighter in color than that which had stood in the field till ripe. The straw of oats, when harvested early, and properly cured, is nearly as valuable for cat-

tle feeding as the best clover hay; and when chaffed and mixed with chopped roots or meal, it makes a feed eagerly partaken of by stock of every description.—*Germantown Telegraph.*

JONATHAN SLOW;

OR, FAITH, HOPE AND CHARITY.

BY LEWIS DELA.

An angler great was Jonathan Slow;
There was not a stream he did not know,
Nor the slightest nook where a fish could go
In a shady spot to hide.

He had such a knack of hooking a worm,
The fish that saw its eloquent squirm,
Had a chance to swim a definite term!
But twice the chance to be fried.

Good luck had made of Jonathan Slow
A man of faith; to fish he would go,
If the wind blew high, or the wind blew low;
No matter for rain or shine;
He would hie away to the quiet brook,
And under a tree in some shady nook,
With a smiling face and a saintly look,
Would trust to his hook and line.

'Twas a sultry day, and the skies did lower;
First a gleam of sun, then a soaking shower,
And Jonathan fished hour after hour,
Not caring for heat or rain.
The water poured from his reeking clothes,
Mosquitoes had bitten his eyes and nose,
And this was all, for excepting those
He had waited for bites in vain.

I always had faith, said Jonathan Slow,
And I still have hope, for the pious know
That both together the pair must go,
To make us exactly right.

I am thankful, then, that those gifts are mine;
I will teach to others the truth divine;
“Precept upon precept, line upon line”—
Ah! bless me! there's such a bite!

'Twas a bite indeed; for a trout near by
Had looked on the worm with a wistful eye,
Not dreaming that it was a “glided lie,”
On account of the hook within.

And hearing then the man with the pole
Thus quoting Scripture, he thought, poor soul,
He'd take the proffered worm in his jaw,
And a savory morsel win.

He bit, and lo! the hook in his gill
But showed that fishes, like mortals, will
Find oft in a “sugar coated pill,”

With a text of Scripture given,
A dose that they had no desire to take;
A point they did not intend to make;
A line they struggle in vain to break;
A heart by error riven.

But enough for us that the fish was caught,
For Jonathan started as quick as thought,
And on to the bank a trout he brought

That weighed six pounds or more,
And thinking now, as 'twas almost night,
He would not wait for another bite,
He started home, as well he might,
The trout with pride he bore.

He said to himself, I'm soaked with rain,
But Faith and Hope did my heart sustain,
Blessed as I was by these sisters twain,

This noble prize I see;
There's a widow on my homeward way,
She shall have the fish, without price or pay,
And I shall have practiced then, to day,
Faith, Hope and Charity.

MORAL.

We are anglers all, on the shores of fate,
And though often times we may lose our bait,
We must try it again, and calmly wait,
Nor be frightened off by showers.
We may get our fish by the morning light;
We may toll in vain till the shades of night;
We may oft get bit—then we may get a bite—
And the best of luck be ours.

There are many streams where fish are caught;
The streams of trade, and the streams of thought;
Wherever the mind or hand has wrought,
'Neath the light and smiles of heaven.
Let us not forget, as our lines we throw,
The Faith and Hope of Jonathan Slow,
And may part of our treasures here below
To the widowed ones be given.

Portland Argus.

PROPER USE OF EXERCISE.

Those who are able can scarcely take too much exercise of any kind, so that it is kept within the bounds of fatigue. Walking, riding, rowing, fencing, and various games, as fives, tennis, rackets, &c., are all to be recommended to those who are able to enjoy them. Horse exercise is particularly beneficial when it can be borne, partly from the exhilarating effect of rapid motion on the spirits, but principally by the complete exoxygenation of the blood it leads to, by the gentle exercise of voluntary inspiration it induces.

Reading aloud and singing, when not carried to excess, are most beneficial exercises, and can be practised by the most infirm. They tend to produce deep inspiration, equal expansion of the lungs, and give free access of air to the smaller divisions of the air passages, thereby decarbonizing the blood more rapidly. The lungs, diaphragm, and walls of the chest, are gently but freely exercised, and the air tubes are freed from obstruction. Like all other organs, those of respiration acquire power by exercise, and that which at first produces breathlessness is soon performed almost unconsciously, and without fatigue. In all these cases and in all gymnastic exercises, care must taken not to hurry the circulation so as to produce either breathlessness or muscular fatigue.—*Spencer Wells on Gout.*

MULES vs. HORSES.—The following estimate in the difference of expense of keeping Mules and Horses, is made by *The Southern Planter*, which from our acquaintance with these animals, we can endorse:

Ten horses will consume each 12 bbls. of corn per annum, say for twenty years, which is equal to 2,400 bbls., worth on an average, \$2.50 per barrel.....	\$6,000
Shoeing ten horses will cost \$30 per annum, (\$3 each, or more, which we have to pay,) say for twenty years,....	600
Cost of feeding on corn and shoeing ten horses for twenty years,.....	\$6,600
Ten mules will consume each 6 bbls. of corn per annum, say for twenty years, which is equal to 1,200 bbls., worth on an average, \$2.50 per barrel—no expense of shoeing.....	\$3,000
Amount saved in twenty years by mules.....	\$3,600

According to this estimate we save \$3,600 in twenty years, or about \$200 per annum, by having mules instead of horses; and then the mules are much longer-lived and less liable to disease.

For the New England Farmer.

AGRICULTURAL FAIRS.

MR. EDITOR:—As the season is approaching when "Fairs" will attract and take up the time and attention of farmers, a few words may not be out of place. Having been personally interested in agricultural fairs during the last fifteen years, I can speak with some knowledge and confidence in regard to their management and benefits. These institutions have probably during the last fifteen or twenty years done as much or more to sustain and bring about a renovation in agricultural improvements as any other institution. Still a twelve or fifteen years' practice and experience shows us that there is a great need of reform in their management. The general plan of giving out and awarding premiums has become so dull, and monotonous, that the whole proceedings have come to be a complete "stereotyped" affair, so that anything like variety is out of the question. For instance, there is nothing to be gained or learned in giving out large premiums for heavy, fat animals, or large and heavy field crops, because this was found out and known years ago.

And yet it may be a difficult matter to mark out a path to travel in, in this business. We think that the premiums on farms might be so awarded that a real benefit might come out of it. For instance, instead of giving the premiums to the best cultivated farm, as is usual, let the award be made to the farm that shall show the greatest improvement, say in three or five years in succession. Of course taking into consideration the amount of labor laid out, the number of acres cultivated, the situation of the farm, from markets &c., and the amount of means which the farmer has to do with. In this way, where the improvement were to run from three to five years, the farmer of moderate means might stand as good a chance for the premiums as the more wealthy one. That is to say the award in that case would depend more on skill and management than on money and means, although both should be combined together to ensure success. In a matter of so much importance as the managing and arranging of awards of premiums so that all will be satisfied, it is a difficult matter, and we can only give an outline on one or two points.

Every society must know or learn for themselves about what management is wanted in their locality to suit or ensure success. Our experience in this business has shown us a great variety of men and minds to suit in connexion with agricultural fairs. And when the great law of "self" stands out so prominent it is a matter next to impossible to suit all. For instance we have known a farmer to get disaffected on the award of a premium of a few dollars on an animal, and with this feeling not to come near the society again for years. And if he ever did come back again, he probably came more to grumble and find fault, than for any good purpose. There was a class of farmers too, who would go to the "fair" and pay their dollar, provided they have anything to show for a premium, and that was the last of it with them. There was another class of farmers who might pay their dollar if called upon, and thus avoided the responsibility as they were never known to attend the meetings of the society, or take any special interest in its welfare, whatever. There

was still a very small class of working farmers left who made it a point to attend the meeting of the society in all cases and to do so out of principle, and not from more motives of "self." On this class of men did the society always have to depend for its efficacy in carrying out the work necessary to be done, to make the "Fair" successful. But now, since "Agricultural Fairs" have become so popular, there is not that difficulty existing to such an extent as there was a few years ago. Probably there may be found ten efficient working men who will enter into this field of labor, where there could be one found ten or twelve years ago. Still we are satisfied that the large part of the work for these institutions has got to be done by a few energetic working men. It will be next to impossible to have these institutions so managed but that there will be some grumblers left. And yet there may be such management carried out as to live down all opposition, and finally give a complete triumph.

Yours truly,
Derby, Ct., June 26, 1854.

L. DURAND.

REMARKS.—In Middlesex county, and perhaps in others, premiums are awarded on farms strictly in accordance with the views expressed by Mr. DURAND.

For the New England Farmer.

FARMS ENTIRE.

MR. EDITOR:—Your judicious remarks upon the benefits to be derived, from the notice of *farms entire*, *farms* viewed by committees of agricultural Societies, instead of particular crops, (frequently the result of forced culture,) brings to mind the advice of that model of Massachusetts farmers, TIMOTHY PICKERING, in his address to the State Society, in Oct., 1822, when he was more than 80 years old. Says he, speaking of the manner of giving premiums, "One pleasing result has appeared—that by ample manuring and good culture, the usual crops of the same plants may be doubled and even trebled. But is it necessary to continue premiums of this kind? May not now the entire management of farms rather claim attention? Instead of numerous small premiums disposed on a variety of subjects, might they not be advantageously concentrated for the purpose here intimated—the cleanest, most economical, the most productive management of farms? For it must be such a general improvement of the entire farms that will constitute the farmer's permanent prosperity."

"Perhaps it may not be difficult for the Trustees of the State Society (the State Board of Agriculture) he would have said in these days) to prescribe some general principles and rules of proceeding, that may produce uniformity in the reports of county committees acting under their direction."

There is so much simplicity, clearness and wisdom, in the instructions of this venerable man; that I love to dwell upon them. I delight in refreshing my mind with this perusal. As your paper has the reputation of being eminently conservative, I thought some of your young readers would be instructed by the quotation;—and I know your old readers will not be offended by it.

July 3, 1854.

THE PROPER TIME OF CUTTING GRAIN.

In the 2d volume of "British Husbandry," p. 136—7, it is said,—“The question has been for some time agitated, regarding the state of ripeness in which grain should be cut; and it has been recommended, as a general rule of practice, to cut down the crops before the uppermost grains can be shaken out. * * * * Taking all things into consideration, it seems to be the most prudent plan to have the grain cut before it is fully ripe; but in this a medium course should be adopted, for although grain, if allowed to become too ripe, assumes a dull, dusky hue in the sample, yet if not ripened enough, shrivels in the drying.”

In the "Reports on Select Farms," it is said in reference to the management of the Scoresby farm, superintended by Mr. C. Howard, that

"Wheat ought never to be allowed to remain uncut until it is fully ripe. Experiments, easily made, will prove to every cultivator of it, that by permitting it to stand until the straw has lost its succulency, he gains nothing in plumpness or bulk of grain, but loses much in color and fineness of skin; besides which, he incurs the risk of shelling by high winds, or by its being cut under the influence of a burning sun. When fully ripened by standing in the shock, no dry hour should be lost in getting it well secured."

LOUDON, the celebrated English writer, whose views and opinions upon all topics connected with agriculture are singularly logical and correct, says on this subject:—

"In harvesting wheat, the best farmers, both in Britain and on the Continent, agree, that it ought to be cut before it becomes dead ripe. When this is the case the loss is considerable, both in the field and in the stack yard; and the grain, according to Von Thaer, produces an inferior flour."

CADET DE VAUX, the French author of a valuable and erudite treatise on wheat, remarks:—

"Corn (wheat) cut eight days before the usual time, has the grain fuller, larger, finer and better calculated to resist the attacks of the weevil. An equal quantity of the grain thus reaped, with grain reaped at maturity, gave more bread, and of a better quality. The proper time for reaping, is when the grain, on being pressed between the thumb and finger, has a doughy appearance, like a crumb of bread just hot from the oven."

The philosophy of the usage recommended by the writers above quoted, is not immediately apparent to every one. The question, indeed, has frequently been asked in our hearing—"Will any valuable accessions be made to the grain if the wheat plant be detached from the roots before the former has arrived at maturity?" That is, to resolve the query into a somewhat more familiar form—"Will the wheat, or other grain, so cut, receive from the immature stalk, any assistance in filling and matur-

ing, and will it, if cut when in the milk, ripen and be as sound and nutritious as if allowed to remain till fully ripe?"

To the question thus demanded we have no hesitation in replying, affirmatively. We think that experience has plainly demonstrated, that many important accessions are made to Indian corn when the plant is cut up and shocked at a period of its development when there is but little sound corn in the field; in other words, when the ears are green and immature. Most of the southern corn brought to our markets is cut and shocked in this manner. This becomes necessary with the planter to enable him to get in his wheat crop. The corn is cut early, placed in large shocks, often on the furrows where it grew, and frequently remains in that condition for months; yet it comes to us hard, sweet and sound.

We have seen oats cut when there was not a ripe or yellow head in the field, and on threshing, and comparing the grain with that from a field adjoining, in which the oats had stood till fully ripe, have found the former superior to the latter, not only in point of weight, but in brightness also. The philosophy of this, a late writer explains as follows:—

"After the formation of the ear has commenced the berry or the kernel is the point to which all the efforts of nature are directed; and this is continued until the process is complete,—the juices desiccated and rendered incapable of absorption,—or the supply of nutritive matter exhausted. As the juices become thicker in consequence of the non-supply of sap from the root of the plant, the deposition becomes more active and rapid in the grain, so long as it moves at all, or till the kernel is filled; which will in part account for the fact that grain severed from the root, after the proper supply of nutriment for the kernel has been elaborated in the stalk, ripens so much quicker than it would if left attached to the root."

There is another very important advantage secured by cutting grain before it becomes "dead ripe." Most farmers find the straw of their cereal crops, of value as fodder for stock; and this, when cut green, is much more nutritious than if left until all its nutritive juices are exhausted, and the fibre rendered hard by becoming mature in the field.

It is supposed by some good cultivators, that wheat intended for seed, should be allowed to ripen a little more than that intended for grinding.

☞ The only brother of Henry Clay was a cabinet-maker; Webster, the giant of statesmen, and the ornament of his country, had a brother-in-law who never learned to read until after completing the period of three-score-and-ten, and a majority of the first statesmen of the present time are the energetic and ambitious sons of "poor but honest parents."—*Washington Union*.

NATIONAL CATTLE SHOW

OF THE UNITED STATES AGRICULTURAL SOCIETY.

[CIRCULAR.]

Springfield, Ohio, May 1, 1854.

DEAR SIR,—The 25th, 26th and 27th days of October next have been fixed by the United States Agricultural Society for holding its first CATTLE CONVENTION, in the City of Springfield, Clark county, Ohio.

Six thousand dollars will be distributed in premiums for the best stock of the various breeds of Cattle subject to competition without territorial limit.

The Executive Committee of the United States Agricultural Society have been careful to select a time that will not, so far as they are aware, conflict with any of the State Fairs or other meetings of general interest; and after due deliberation have selected this place as the most eligible for holding the Cattle Fair. Springfield is centrally located as regards the cattle region; it is most convenient of access by railroad from almost every point of the compass. The means for accommodating, at very moderate charges, a large number of persons, are ample. Private houses will be opened for the reception of guests. There are also eighteen cities and towns within reach by an hour's ride on the railroads, on which extra trains will be placed to accommodate such as wish to go elsewhere for lodgings.

About twenty acres of ground have been enclosed, and more than three hundred stalls will be prepared for the shelter of cattle during the convention.

It is expected that very liberal arrangements will be made by all the railroad companies, both for the transportation of cattle and the conveyance of passengers to and from the Fair.

We respectfully solicit your attendance on the occasion, and that you will furnish us with such aid as you may feel disposed in making known the objects, time, and place of the Convention; and if you have improved stock of cattle, of any description, we cordially invite you to enter them for competition.

A list of premiums and copy of regulations will shortly be published.

Very respectfully, yours,

J. T. WARDER, } Local Executive
C. M. CLARK, } Committee.
C. ROBINS, }

CHEESE AS A DIGESTER.

As a digester, as some not appropriately call it, cheese—that which is decayed and mouldy being preferred by connoisseurs—is often eaten after dinner. The action which experience seems to have proved it to possess, in aiding the digestion of what has previously been eaten, is both curious and interesting, and has had some light thrown upon it by recent chemical research. When the curd of milk is exposed to the air in a moist state, for a few days, at a moderate temperature, it begins gradually to decay, to emit a disagreeable odor, and to ferment. When in this state, it possesses the property, in certain circumstances, of inducing a species of chemical change and fermentation in other moist substances with which it is mixed, or is brought into contact. It acts after the same man-

ner as sour leaven does when mixed with sweet dough.

Now, old and partially decayed cheese acts in a similar way when introduced into the stomach. It causes chemical changes gradually to commence, among the particles of the food which has previously been eaten, and thus facilitates the dissolution which necessarily precedes digestion. It is only some kinds of cheese, however, which will effect this purpose. Those are generally considered the best in which some kind of cheese mould has established itself. Hence the mere eating of a morsel of cheese after dinner does not necessarily promote digestion. If too new or of improper quality, it will only add to the quantity of food with which the stomach is already overloaded, and will have to await its turn for digestion by the ordinary process.—*Chemistry of Common Life.*

For the New England Farmer

CHAPTER ON HUSBANDRY.

NUMBER I.

MR. EDITOR:—Will you indulge me with a few hints to the live "lords of creation."

1st. Every farmer should practice the art of *mechanics* to a certain extent, so that he can lay a *shingle*, build a *pig-pen*, mend a harness or his farming tools; keeping all these things in order, so that rainy days in summer, and snowy days in winter, are occupied in these odd and end jobs which draw a little on his genius.

2nd. Take a small corner of a building, which can always be spared—with his bench and all the necessary tools to do this work, and thus he saves many dollars every year without the vexation of hearing repeatedly—"O, you shall have it to-morrow and no mistake."

2d. Have one place for your tools, and *no neglect in placing them*. Polish your shovels, forks, scythes and axes when you hang them up. Rust corrupts and weakens. Did you never see a plow that had taken its cheerless winter quarters in the frozen furrow, waiting for a spring thaw? and the "bran-new" scythe left to dangle in the crotch of the old farm tree year after year? not unusual sights these. Drive *pins*, to hang your yokes upon, nail strips of board from joist to joist to hang the chains upon—make a rack over head for your pitchforks, rakes, turning-sticks, &c.

4th. The barn-cellar is the *bank*, and the best outlay of capital,—never return home with an empty cart, the return cargo will enrich your farm when placed in the barn cellar. One load of such manure, well mixed in the cellar, is worth two loads out door, evaporated manure, it being saturated with urine, and very strong.

6th. Plow deep; regardless of the "yellow dirt," (which was formerly the caution to the boys) and the roots will deepen in the soil, and derive a benefit much greater, than if struggling near the surface, will be better protected against drought, and the soil less liable to be blown away, as much of it is, by drying blasts.

7th. Use the *long spade* in your vegetable garden. Tap roots are never timid about driving deep.

8th. Hay is your staple commodity, make it in the most compact manner possible. All the aroma that sweetens the air, is so much lost to the value of the hay. To mow, spread, and let it lie

and take one night's dew, and prepare to get it in the next day without having been cocked up, is a positive loss, of nearly a quarter part of its value.

9th. Grain should be harvested as soon as the straw has begun to deaden and the berry has passed the milk. Oats and barley straw will be the better for fodder, and wheat or rye straw loses nothing—beside, you scatter no grain in gathering.

Mr. Editor, my subject is far from being exhausted. Should it meet your approval, I shall appear to you again. Yours truly, H. P.

Brooklyn, June 24, 1854,

REMARKS.—Excellent advice, the whole of it. How any farmer can get along without a bench and a few tools, we cannot imagine.

In this age of progress and improvement, when farmers visit and criticize the operations of each other so much—when line upon line and precept upon precept are so constantly given in addresses, lectures, and agricultural papers, upon neatness and order in the management of the farm, fully one-half of all engaged in the art, lose the interest of some two or three hundred dollars annually in the neglect of their tools.

SUGAR IN THE LIVING ANIMAL.

One of the greatest discoveries of our day, says a French paper, is that made by Claude Bernard, of the constant formation of sugar in the liver of animals. Feed an animal how you will—with food containing saccharine matters, and with food containing no trace of them, you will always find the animal has, from the blood, formed sugar for itself. This sugar which is secreted by the liver, is, like all secretions, under the influence of the nervous system; you have only to cut what are called the pneumogastric nerves, and in a few hours all the sugar vanishes. The amount of sugar thus formed in every healthy animal, may be increased by certain influences, and then it gives rise to, or is the indication of various diseases. In one disease the quantity is so great, that M. Thenard extracted fifteen killogrammes of sugar—something like thirty pounds—from the secretion of one patient; real sugar, too, and of irreproachable taste, according to Boussingault, who tasted it. But now attend to this; what nature does in disease, man can do in the terrible theatre of experiment. Claude Bernard has proved that there is a very small region of the spinal column—by anatomists styled *medulla oblongata*—the wounding of which—between the origin of the pneumogastric and acoustic nerves—provokes this increased secretion of sugar, and if, with a sharp instrument you wound a dog or rabbit, in this place, you will find that, in a little while, sugar has accumulated to an immense extent in the blood and other liquids.

GRAVELLING WALKS.—How few gravelled walks do we find on which a lady with a thin shoe can walk. The gravel is loose and coarse and gives at the pressure of the foot. If those who are putting on gravel would mix one-twelfth of water lime, and wet it up as for mortar, loosen the dirt slightly in the walk, and then spread on the

mixture about two or three inches deep, round it in the centre, beat it lightly with the back of the spade, and then leave it for two days without stepping on it, they would find a walk firm and solid to the foot and pleasant to walk upon.—*Ohio Farmer.*

For the New England Farmer.

GUANO.

Some months since, while absent from home, a clergyman in Massachusetts wrote me a very pleasant letter of inquiry on the subject of guano, its uses and effects, offering in a manner worthy of an upright man, to compensate me for the time and trouble of answering him at length. Upon returning home after an absence of quite a number of weeks, I found so large a number of letters on various subjects awaiting my attention, that I could not answer them all without considerable delay. The one particularly referred to, got mislaid, and I have never since been able to find it. As the gentleman was a stranger to me, I have forgotten his name, and the town in which he resides, and cannot therefore answer him, as I should have done before this time, had not his letter been lost.

Perhaps he is a reader of the *N. E. Farmer*. If so, should the editor of the *Farmer*, who, with the publishers, has ever been very obliging, allow me to answer his inquiries as well as I can through that paper, I shall be glad to learn that my unknown friend receives it.

In the first place I will say that I have proved guano insufficient as a manure, upon some soils, to mature any fair crop of seed-bearing plants. I have tried several experiments for the purpose of determining this beyond question, as I have also with preparations of superphosphate of lime. Where the soil contains little or no carbonaceous matter, or little or none in such a state as to be immediately taken up by growing plants, these plants may produce the blade, or even the ear, but not the full corn in the ear.

I planted a piece of ground for experiment, where all other circumstances would be fair for the growth of Indian corn, except the manure supplied. There was but little old vegetable matter in the soil. I manured it generously with the improved superphosphate of lime. It came up well, and in color and appearance was very beautiful. As soon as it came to earing, the evidence of a failure became distinct. Not an ear of it filled out; and it did not produce equal to five bushels per acre. I tried another piece with a mixture of equal quantities of guano and superphosphate, and the product of seed was but a little better. Guano alone was still a little better, when applied in equally sufficient quantity.

Upon a piece of ground where I planted corn for fodder, I applied a light dressing of stable manure, spread and plowed in. I sowed the corn in drills, in most of which was superphosphate or guano. To prove the value of the superphosphate for such a purpose I left some of it with none in the drills. With a growth of ten weeks duration, I cut up the corn from an equal surface of the ground where the superphosphate was applied and where there was none, and found the weight of that where the superphosphate was applied to be equal to thirteen and a half times

the weight of the other. The effect of guano, for that purpose, and on that piece of ground, was somewhat less. It proved, however, very satisfactory and valuable.

It is, in my mind, settled beyond a question, that for the production of the mere blade, or stalk, these manures are very valuable. But where seed is to be produced, there is requisite a large amount also of carbonaceous food for the plant in the soil.

In growing Indian corn, after supplying the soil with vegetable or carbonaceous matter, I have found the best effect from guano applied in the hill, at the rate of from one to two hundred pounds to the acre. After scattering it in the hill, it should be covered from one to two inches deep, according to the quantity used, and the state of the ground. A mixture of equal quantities of guano and superphosphate I have found better than clear guano.

For corn, potatoes, carrots, tomatoes, celery and onions, I have found guano very valuable. These all require a large supply of ammonia, I think. It is especially so with tomatoes, celery, carrots and onions.

Cabbages and turnips have an aversion to large quantities of ammonia. It spoils the roots, and a moderate quantity only of guano can be used upon them with safety. Superphosphate is very valuable for cabbages, turnips and beets.

Phosphate of lime and guano, I have no doubt are, together, of great value for wheat.

"Is guano a lasting manure?" For some purposes guano will prove a lasting manure. For onion-fields, it must, I think, prove a lasting manure. The onion, while it requires much ammonia in the soil, in order to its growth, takes much also from the atmosphere and the rains. When the bulb becomes mature, it appears to shed its long fibrous roots, and with them, a very heavy charge of ammonia, into the soil. For this reason, doubtless, it has long been observed that they do better after years of culture upon the same soil. It is for this reason, I presume, that hog-manure, animal substances, &c., have so beneficial an effect upon onions. Peruvian guano must, I think, for such a purpose, prove a lasting manure.

For corn, potatoes, wheat, &c., its action must necessarily be different. The action of ammonia is as powerful as to cut the surface of glass. I am very sure that it decomposes the most solid feldspar, and remains in combination with its alumina. Active in the soil, it produces, directly or indirectly, a more powerful growth of plants. The alkalies of the guano hasten the decomposition of whatever old vegetable matter there is in the soil, which by the increased growth of the crop hastens the exhaustion of the soil. Consequently a liberal and continued application of guano alone would in a short time reduce most of our soils to an unproducing state.

Guano is a very valuable manure; but it may be so used as to produce the worst of consequences; even to render soils barren and worthless.

If it is to be applied as a top-dressing to old mowing fields, it will cause them to become barren in a few years, unless it is composted with much old vegetable matter, in the form of meadow muck, decomposed sawdust, or something of the kind. If I used guano alone as a top dressing for mowing, I should feel the necessity of follow-

ing the next year with a liberal dressing of old vegetable manures, with perhaps lime and salt, or with wood ashes instead of lime.

I am fully of opinion that guano is a very valuable manure, but every intelligent clergyman certainly knows that the richest and best gifts and mercies are liable to be turned into something else than blessings, by erroneous use and application.

I shall not be surprised if the importance of guano as a top dressing in orchards, where no crop but the fruit crop is to be taken off, or its use in waste lands, should engage the attention of cultivators before long.

I expect that thousands will misapply, and then altogether condemn the use of guano, superphosphate of lime, &c. But if we can but understand how to use those things which are within our reach, it will be well for us.

Mason, N. H.

A. G. COMINGS.

For the New England Farmer.

A FERTILIZER, ALMOST EQUAL TO GUANO.

By the politeness of a friend, I yesterday called on R. S. FAY, Esq., of Lynn, at his romantic residence, on the western borders of Salem. Here, in the centre of a tract of *four hundred acres*, on the verge of a beautiful lake of sixty acres, on a soil as rough and romantic as any other to be found, Mr. F. passes his time, experimenting for the benefit of himself and his neighbors.

Mr. FAY has probably done more to illustrate the practicability of growing forest trees of various kinds, than any other man in eastern Massachusetts. But my purpose, in taking pen in hand, at this time, is to speak of the fertilizing influences of his flock of sheep, upon the meadows, where he cuts his hay. South of his residence are *twenty acres*, or more, of mowing land, reclaimed from an alder swamp, within the last dozen years, on which is now growing a crop of two tons to an acre, on an average. Several spots of a quarter of an acre were pointed out, where his flock of 300 sheep had been kept for several days together, not exceeding a week on any one spot, where, in consequence of the sheep having been there, the crop was doubled. Mr. F. showed us a *wire fence*, *moveable*, costing only \$1.50 per rod, that he used to confine his sheep—and said it would be easy to fertilize *ten acres* in a season, by his flock, by the use of the fence. I have often heard of the fertilizing qualities of the droppings of sheep, but never before have seen them so distinctly and advantageously illustrated.

In his well arranged stone stable, I saw his apparatus for dropping and steaming his corn fodder, and other feed given to his stock. Thus prepared, the coarsest parts are readily eaten. In all the operations upon the place, there is a marked combination of utility and economy;—and a modesty in speaking of them worthy of all commendation.

I have no where seen, more vigorous fields of Indian corn, than on the gravelly knolls on this farm. The man who has the faculty to grow such crops—on land time out of mind known as *seldom good pasture*, is certainly entitled to some credit. I observed large heaps of mud taken from his swamps, and parcels of bone, collected from the slaughtering establishments of the vicinity,

and several casks of plaster laying around;—and I have a strong suspicion, that the healthy aspect of his corn fields, had some connection with a combination of materials of this character. When properly combined and judiciously applied to a soil, deeply stirred and thoroughly pulverized, be it never so forbidding, there need be no fear of the crop;—even though the signs of rain fail, to a great extent, as they have done for a fortnight past.

I have thus briefly sketched the impression of the moment, by way of remembrance of what I saw;—and in the hope that others will be equally well pleased and instructed by a view of the same—as I feel confident, nothing will give the courteous proprietor more pleasure, than to afford such instruction.

July 1, 1854.

For the New England Farmer.

THE FARMER'S TACT IN SELLING.

FRIEND BROWN:—When your correspondent, "Agricola," said that "selling is one essential part of farming, and that without a tact at this, a man is no farmer at all," he hit a nail on the head, which I have often wondered has not been hammered at more. I consider the aforesaid tact the one thing needful—with it, the farmer is almost sure to go ahead and prosper, without it, he is about as sure to fail in a business point of view, though he have ever so much knowledge of, and love for, the cultivation of the soil. For most of his surplus produce the farmer must seek a market; he can't always stay at home and have the buyer seek him, if he does, he will make a poor business of it.

The New England farmer raises a little, and sells a little, of many different things; his live stock is continually passing through his hands; in fact, he has about as many bargains to make in a year as a country store-keeper; like him, too, he is often called upon to give credit and receive in payment a notification that Mr. Butcher A., or boarding-house keeper B., are insolvent and the creditors will meet, &c.

For a young man of small capital to reach in early life and maintain the position which all young men aspire to, that of an independent head of a family, by farming, requires a business capacity, besides a proper knowledge of farming, which few possess. This, I think, is the true reason why so many young men quit the farm for the counter, or the mechanic's shop; not from any dislike of the position, or work of a farmer, but a conscious inability to fill the place with satisfaction and benefit to themselves. They see that the farmers who have started with small means and succeeded, as every young man wants to succeed, have been men of superior talent and energy, or have been slaves to their farm, working as no man should, and as few men can work. Your lively associate editor advises, "Stick to the Farm," and good advice it is; perhaps he might have dealt a little more justly with those who do not "stick."

Our literary, lyceum lecturers, also, take occasion to fling at "counter-jumpers" from the farm. All of not much avail, I reckon—those will continue to leave the farm who should, and, perhaps, a few others who should not. I have before now been tempted to say a word on this mat-

ter, and perhaps the humble position I take will mollify the wrath of those who still take up the shovel and the hoe against the deserters.

Andover, Mass.

ONE OF 'EM.

THE SOIL.

Either of the original earths, so called, in a state of isolation, constitute a sterile soil. The productive power of all cultivated lands depends almost exclusively upon the relative proportions in which the primitive earths are mixed in their composition. It is to the almost infinite variety of these proportions, that we are to refer the various descriptions of soil which are met with on the earth's surface. The more fertile a soil is, as a general thing, the less will be its specific gravity. Many curious experiments have been instituted in order to ascertain accurately, the reliability of this as a criterion, and the following by W. RHAM are perhaps as authentic as any with which the public have as yet been favored. A good quality of garden mould consists of

Clay.....	52.4
Silicious sand.....	36.5
Calcareous sand.....	1.3
Carbonate of lime.....	2.0
Organic matter.....	7.3

was found to possess a specific gravity of 2.332.

A good loam consisting of

Clay.....	51.2
Silicious sand.....	42.7
Calcareous sand.....	0.4
Carbonate of lime.....	2.3
Organic matter.....	3.4

had a specific gravity of 2.401; and a soil of poorer quality, consisting of

Silicious sand.....	64.0
Clay.....	32.3
Calcareous sand.....	1.2
Carbonate of lime.....	1.2
Organic matter.....	1.3

had a specific gravity of 2.526.

M. CHAPTAL, in some very valuable observations on soil, says:—"Land in which there is a preponderance of lime, (carbonate of lime is here doubtless meant,) is porous, light, easily permeable by water, can be tilled without difficulty, forms a paste which possesses little or no consistence, and is not sensibly altered by the action of fire. The air easily penetrates calcareous earth, and is there capable of vivifying the germs which it contains to a certain depth; but water, which penetrates it without resistance, escapes again with equal facility. Land, of this nature, is alternately swamped and parched; and those plants which are not strong enough to withstand such variations, languish or perish in a soil of this nature." VON THAER says:—"When a soil contains too much lime, that substance is apt to become prejudicial. This is especially the case in districts where a chalky formation exists.

1. Because it does not retain moisture, and has even a greater disposition than sand to suffer it to evaporate; consequently, during warm, dry weather, it is totally parched, and reduced to dust.

2. Because it consumes manure and humus very rapidly; accelerates the passage of these substances to the plants, and thus hastens their vegetation at first; and does not reserve any nutrition for their support during the latter stages of their development; on which account they fall off and perish before they arrive at maturity."

According to some writers, calcareous soils, which present, on analysis, forty parts in one hundred of lime, thirty-six of sand, and a liberal percentage of aluminous or argillaceous matter, is wrought with greater difficulty, after being saturated by a heavy fall of rain, than argillaceous soils, so called, are. In a state of ordinary dryness or freedom from excessive moisture, this difficulty is essentially diminished, however, and the details of husbandry are readily performed. As to humus, it may, perhaps, be considered as a good rule to regard the fertility of soils as increasing in proportion to the quantity of this article—in a soluble state, which it contains. Perhaps—if we may rely upon the data furnished by the best analytical chemists—two parts in a hundred of humus by weight, as the average quantity in argillaceous soils, and one and a half parts as the average of the same in sandy vegetable soils.

Results differ widely, however, in the analytical examination of the several descriptions of soil; but if we take a medium quality of the surface soil from a field, evaporate the water, and then subject it to white heat, after having weighed it subsequent to the evaporation, the diminution of weight occasioned by its exposure to the action of heat, will indicate the per centum of humus contained in it. This process may be regarded as a sure test, and is so simple in its manipulatory details, that any person can work it out with the utmost ease.

It is often desirable, on many practical accounts, to possess accurate and reliable information on this point. A true knowledge of the specific productive energy or fertility of soils, must ever be regarded as a most important consideration in farming; and, indeed, the more we know of the chemical character, and capacities of the soil for production, the better shall we be enabled to farm it judiciously, and the greater will be our profits from our investments of labor and manure. The action of manure on light, sandy soils, is to increase its cohesibility, its capacity for absorbing and retaining moisture, and to render it more compressible. Applied in sufficient quantity; it communicates unctuousity, renders it less likely to be injuriously affected by the sudden atmospheric alternations of wet and dry. It also constitutes a better medium for the roots of vegetables, which, in a light and excessively porous soil, do not take hold with sufficient firmness, and are often seriously injured by undue experiments to light and air, in the interstices which exist so numerously

in the vegetable structure, and even in the sub-soil, generally, upon which it reposes. Any vegetable matter, of a decomposable nature, is by the action of the soil, capable of becoming "*humus*," or food for plants.

WHEAT A PURIFIER OF THE ATMOSPHERE.

The following extract from a paper on the "Comparative Fattening Properties of the various Breeds of Sheep," by JOHN B. LAWES, Esq., of Rothamsted, England, contains some new views on an important subject which will be read with interest:

"Experiments conducted upon this farm for the purpose of ascertaining how much nitrogen is converted into the flesh of the animal, prove that 100 lbs. increase live weight does not contain more than 2 to 3 lbs. The nitrogen, which is taken by the animal to make the increase, amounting from 17 up to 47 lbs., is converted, in its passage through the animal, into ammonia, every 14 lbs. forming 17 of ammonia, this ammonia being again employed in producing fresh vegetable matter; and here we obtain a glimpse of one of those beautiful laws by which the purity of the air is preserved. It has been calculated that at the present time above 7,000,000 tons of oxygen gas are converted into carbonic acid gas daily by the population, the animals, and the various processes of combustion. As all these processes have been increasing daily since man was created, the atmosphere would become deteriorated, unless some compensation existed. Philosophers have shown us that it is the office of vegetation to restore the balance, that plants possess the wonderful property of separating carbon from its combination with oxygen gas, and restoring the latter in its pure state to the atmosphere, and they point to the great tracts of forest land in various parts of the world as the great sources of oxygen gas. To a thoughtful person it must, however, occur, that if the forests are the great sources from which oxygen gas is derived, two processes are going on at the same time, both of which tend to one result. The destruction of forests naturally and inevitably follows the increase of man and animals upon the earth; while, therefore, every day is adding to the amount of carbonic acid thrown into the atmosphere, the forests, which are supposed to be the great sources of oxygen gas, are becoming less and less in extent. The quantity of carbon fixed by vegetation on an acre of forest land has been ascertained by various chemists, and as they agree pretty well in the estimation, we may conclude that it will not be far from the truth to fix it at 1200 to 1500 lbs.

"The experiments upon the growth of wheat for eleven successive years, show that from 2500 to 3000 lbs. of carbon can be produced upon an acre by the supply of mineral salts and ammonia, substances which contain not a particle of carbon in their composition. However contradictory it may appear, at first sight, to suppose that the forest trees towering towards the sky, and exposing an immeasurable surface of leaves to catch every passing breath of air, should extract less carbon, and purify less air than the humble wheat plant, yet such is undoubtedly the case, and we

must acknowledge the infinite wisdom of the Almighty, who in the cereal crops not only provides food for man, but that man must, in producing that food, at the same time purify the air which he is hourly deteriorating. In the United States the same natural laws must produce the same effects they have in Great Britain. Forests will disappear, and, as the population increases, land will become more valuable, and as a necessary consequence it will be better cultivated—instead of 14 or 16 bushels per acre, double that produce will be obtained, and consequently the plants on the same space of ground will purify a larger quantity of air. The greater portion of the carbon consumed by animals is either converted into carbonic acid by respiration, or into food for man, who also converts it into carbonic acid; the residue, consisting principally of salts of ammonia and mineral matter, are restored to the soil, and by their influence enable the plants to decompose fresh portions of carbonic acid!"

THE WHEAT CROP OF CALIFORNIA.

One of the most gratifying indications of the permanent prosperity of California, is the great and rapid increase of her agricultural resources. Two years ago we were known only as a mining country, and the impression was, that, but for our mineral resources, the State would be valueless. This idea has been not only proved erroneous, but the fact has been fully established that this is one, or can be made one of the best agricultural States in the Union. Nowhere can wheat, oats, barley and most kinds of vegetables, be grown with less labor and expense than here. The soil is fertile and the climate unequalled. What is called the wet season, during which crops grow without irrigation, is much longer than what is called the growing season in the Eastern States. In addition to this, prices in mining countries are generally higher than in any other. It is true, that we have no foreign market for our surplus agricultural products, and whenever the market becomes glutted with an article that will not bear long transportation, (as is now the case with potatoes,) the article becomes nearly or quite valueless. But when the agricultural interests and the general business of the country, become more thoroughly settled, such extremes in prices as we have witnessed will not be likely to occur. Because potatoes are a dollar a pound this year, farmers will not again plant nothing but potatoes, and thereby render the crop not worth carrying to market. That wholesome monitor, experience, will learn them to divide crops so as to meet the wants of the people. By pursuing this course, we have no doubt but farming will prove a more remunerative and reliable business in California, than it is in any other State in the Union.

It is now estimated that sufficient wheat will be grown in California to supply the entire demand until the next year's crop. If this be true, the quantity of flour now on hand can hardly be expected to advance in price, nor can it, with what shipments have been and probably will be made, be expected that flour will be extravagantly high during the present year. While we like to see every man fairly and handsomely rewarded for his capital and labor, we dislike to see forestalling in

the necessities of life, thereby compelling the many to pay exorbitant prices for the benefit of a few. Every person must see how much better it is that steady and remunerative prices should rule, and that the money should be paid to our own people, than it is for fluctuating prices to prevail, and the money sent out in the country. We trust that we have reached a point where the necessity of relying upon others for flour has ceased.—*California Exchange.*

For the New England Farmer.

AGRICULTURE IN SCHOOLS.

MR. EDITOR:—Among all the schools that so abound in our land, is it not strange that we have no well supported agricultural school? Law and medicine, theology, and science, have abundant provision made for them, but the business upon which all the rest depend, and which employs the vast majority of our people, has no school. Some have been started and have failed. Our agricultural departments in our colleges accomplish but little, and in our scientific schools, less. Either agriculture does not need schools, or the right kind have not yet been devised.

Farming is an art, and the demand is for practical instruction in the art. Most have attempted to make a science of it, and teach only that. The sciences lie at the basis of the art, as they do at the basis of medicine, and much in the same way.

Besides, such schools ought not to be connected with colleges. There can at present be little sympathy between the students; and the student of Latin and Greek looks with disdain on farming. Medical schools do not flourish as well when connected with colleges as when by themselves, for the same reasons. An agricultural school should be by itself.

Young men cannot yet spend years in going through courses of practical chemistry. They will not use it on the farm; nor can the medical student. Both want *facts* and *principles* that they can apply every day.

Nor can they spend years on a model farm, though this would be of much more benefit. Such a course might be necessary for city-bred young men, who should take a fancy to farming, and who, with the good lady, might suppose a man could plow with a cart in default of a plow; but young men who have the good fortune to be born and brought up on a farm, as I have had, and a good fortune I deem it, too, and who have been made as familiar with the hoe and rake as with A, B, C, feel as if they could apply *facts* and *principles* if they had them.

And now what schools do they want? *Perhaps* just such schools as medical men wanted fifty years ago, and which they now have. A course of lectures from practical men, in a practical form, on the principles and facts of the sciences which lie at the basis of farming. Facts and principles which the young man could gather up and carry home and apply to his own farm, just as the physician would apply what he learned to his patients. Such a course *might* (might, remember) consist lectures upon chemistry in its bearings on farming—entomology and botany, do., animal and vegetable physiology, do., the diseases of domestic animals—just think how they are abused when sick!—or practical agriculture. Now if these could

be put up in the course of two or three months, would it not pay a young farmer to obtain them?

Now it is doubtful whether such a plan can be adopted at once. But a beginning ought to be made.

We have an Academy built on a large scale with the necessary apparatus for a part of this course. It was got up by the farmers in hopes sometime to reap some benefit from it for their business. There is some disposition on the part of the founders of it, to press the matter forward, and by way for a beginning, we shall secure as full a course on the above topics as we can during the ensuing fall term, beginning the last part of August. A course of lectures covering a part of the ground will be given by the principal at any rate, and if encouragement enough is given an attempt will be made to obtain the assistance of other men of skill in the several departments. If this effort is properly encouraged, preparation will be made for a fuller course in the spring. The course this fall will be in connection with the usual academic course.

Now, MR. EDITOR, we feel like claiming a little encouragement from farmers for this undertaking. We also think we can invite farmers, and those who are not, whether they wish to make their children farmers or not, to patronize our school, since we have everything—a beautiful, (and if you have been here,) you know how beautiful and quiet a village, new, large and commodious buildings, ample board of teachers and thorough instruction, and at as low price as can be found elsewhere.

Yours truly,

I. N. NUTTING, A. M., M. D.

Orford, N. H., July 5, 1854.

REMARKS.—We have been at Orford, and found the village among the pleasantest in New Hampshire. It is encouraging to find here and there a proper appreciation of the wants of THE GREAT art, and a determination to supply them. We hope your exertions will be crowned with the most abundant success.

For the New England Farmer.

MAKING AND PRESERVING BUTTER.

Every thing should be kept clean that has anything to do about making butter. The cows (if tied in the barn) may be put on a floor over a cellar. The floor should have three planks from ten inches to a foot wide, so laid, that the middle plank may be where the cow's hind feet naturally stand. These plank should be fastened one inch apart so that all the liquid may pass down through the cracks into the cellar. That is, just a single floor with cracks wide enough to let the water all pass directly into the cellar. Then clean the floor in the morning, and (in the summer) it will be dry at night. I have practised this a number of years, and my cows are cleaner than when they used to lie in the yard. With clean pails take the milk, set it in pans in a cool airy place where it can stand forty-eight hours without being sour. Then take off the cream, and when a sufficient quantity is gathered, churn it, which should be as often as once a week. When it is brought to butter, draw off the butter-milk; then pour cold water with the butter, and stir the

butter in the water with the churn or hand, till it is well washed; draw off the water and add as much more and do as before; draw that off and put in the third quantity of water; then take the butter out of the third water, working it well with the hands as it is taken out. Salt it well, and with the salt add one teaspoonfull of clean saltpetre, made fine, to each fifteen pounds. Then put it in a cool place, and the next day work it over well, and put it down tight in layers of three inches thick, putting a little salt between the layers. Fill the tub within one inch of full, then fill that inch with salt. The tubs are better for having been used for butter before, if kept sweet, but if the tubs are new, soak them in brine till they are thoroughly salted. If the tubs are good and tight, so that the brine is kept over all the butter, it will keep for twelve months, in a suitable place, as good as when first made. If any proof is wanted, I can refer to customers who have used such butter for years.

D. S.

Jaffrey, June 30, 1854.

For the New England Farmer.

SUCCESSFUL FARMING.

MR. EDITOR:—I read an article some time ago in a number of the *New England Farmer*, written by H. Stow, of Woodstock, Vt. I have waited, hoping that some N. H. man would tell us as good a story as Mr. Stow's, and not seeing any yet, I thought I would give you a short sketch of my own management, feeling not exactly willing to admit that the sons of N. H. are much behind those of Vermont.

At the age of 21, I was out of health, not able to work on a farm, and I went to work for a harness maker for \$8 per month. In a short time I found myself at work in Roxbury, Mass., for \$16 per month, but was compelled to quit that business on account of my eyes. I returned to New Hampshire, where land was cheap. I bought an old run-down farm, paid \$500 down, and gave a promise to pay \$900 more, and went to work on my old level farm. The first year I cut not over 5 tons of hay, the third year I raised 1100 bushels produce,—[potatoes, corn, and the small grains, we suppose;] the fourth year cut over 25 tons of hay. I made about 100 loads of manure a year, by carting muck into my yards. There was but one man in this town that made any use of muck at that time, except a little in the hog-yard, and most of them thought I was a fool for shoveling so much mud. Well, I paid for my farm, and in three winters I collected the materials for a set of buildings, with my own hands. I cut and hewed my timber, cut and logged to the mill for my sawed lumber, dug my cellar, split and laid my stone-work, boarded and shingled my buildings, assisted the joiner in his part of the work, plastered and painted, and have a good set of farm buildings, built in the most thorough manner, and as handsome as any in town.

I keep a few tools for shoemaking, harness-making, stone-work, joiner work, &c., &c. In the winter season I make and repair almost every article that I use; in fact, I have a good breaking up plow, that I made myself, that I would not exchange for my neighbor's of the premium pattern. I had not received by heirship an equivalent to \$30, at one-and-twenty, and have earned

more dollars by working out, since I bought my farm, than I ever paid out for labor. I have paid over \$500 interest, and have been laid up by sickness more than two years. These are all facts. If any young man who has commenced farming as poor as I was, will be encouraged by them, and say that "what man has done, man may do," I shall be well paid for scribbling down this sketch. I had forgotten to say that if I am not as well off for spending money as your correspondent at Woodstock, my friends do not call for a banker if I chance to want a little change.

B. W. GAY.

New London, N. H., 1854.

THE SEER.

BY JOHN G. WHITTIER.

I hear the far-off voyager's horn,
I hear the Yankee's trail—
His foot on every mountain pass,
On every stream his sail.

He's whistling round St. Mary's Falls,
Upon his loaded train;
He's leaving on the Pictured Rocks
His fresh tobacco stain.

I hear the mattock in the mines,
The axe-stroke in the dell,
The clamor from the Indian lodge,
The Jesuit's chapel bell!

I see the swarthy trappers come
From Mississippi's springs;
And war-chiefs with their painted bows,
And crests of eagle wings.

Behind the squaw's birchen canoe,
The steamer smokes and raves;
And city lots are staked for sale
Above old Indian graves.

By forest lake and water-fall,
I see the pedlar's show;
The mighty mingling with the mean
The lofty with the low.

I hear the tread of pioneers
Of nations yet to be;
The first low wash of waves where soon
Shall roll a human sea.

The rudiments of empire here,
Are plastic yet and warm;
The chaos of a mighty world
Is rounding into form!

Each rude and jostling fragment soon
Its fitting place shall find—
The raw materials of a state,
Its muscles and its mind!

And westerling still the star which leads
The new world in its train,
Has tipped with fire the icy spears
Of many a mountain chain.

The snowy cones of Oregon
Are kindled on its way,
And California's golden sands
Gleam brighter in its ray!

ALCOHOL FROM PEA PODS.—The green pea season and the scarcity of alcohol have given rise to another unknown trade in Paris. Pea pods have been, from time immemorial, in France, at least, considered as perfectly worthless, and have been allowed to encumber the pig-pen in consequence. The collecting of this rejected matter between the hours of 7 and 9 in the morning, has now become

a regular occupation; and is followed by that class of persons who, during the remainder of the day, pick up the ends of cigars. Pea pods yield alcohol as abundantly, it has been found, as the beet-root or as pumpkins. In England, I believe, a sort of mild beer has long been obtained from them, with the admixture of sage and hops. Now that I am upon the subject of peas, I may as well state that in Paris they are always sold shelled. Those that shell them divide them into three sorts, big, middling and little. The littlest are the dearest, as they are the sweetest. Our favorite brand, the Marrowfat, esteemed on account of size, would meet with no favor here. Its very development would class it among the poorer kinds, to be sold to poor people at rates much lower than cost.—*Paris Letter to New York.*

MIXING SAWDUST WITH ASHES.

The manufacture of animal and vegetable matters—such as fish refuse, butchers' offal, urine, sawdust, moss or peat earth—into manure, and their application to the soil, has long been a subject of anxious inquiry; and that part of it involved in the proposition of Lord Berners, of mixing sawdust with sheep's dung and urine, like other suggestions for economizing the volatile and soluble elements of manure on the farm, now so frequently wasted, is deserving of special notice at this time.

Glancing briefly at old practices first, our forefathers used sawdust for littering their stables, cow houses, sheep-pens, piggeries, and poultry houses, the whole being afterwards mixed together and used as farm-yard manure. Sawyers and carpenters, again, who had none of the above provisions, mixed it in their dung-hills for growing potatoes; while fishermen used it for smoking fish, and mixing in their ash-pits along with fish refuse, selling the compost to farmers. With these practices many localities are familiar to this day, and have been so from time immemorial.

Of these plans, the mixing of sawdust with sheep's dung, urine, slaughter-house and fish offal, is, perhaps, the most deserving of consideration, the fermentative qualities of such articles are the best adapted to overcome the comparatively indestructible nature of the dust. Hitherto the great objection to sawings of wood, as manure, has been their slow decomposition. Immediate activity is necessary to give value to manure, and this is what sawdust does not possess. Excrementary and offal matters, on the contrary, are from their nature subject to rapid decomposition, so much so, that half their fertilizing value is not unfrequently lost. Indeed it is impossible to estimate the loss arising from this source. Now, if the mixing of the two together will effect the decomposition of the former, while it avoids the loss sustained in the latter, the gain must consequently be great.

What gives peculiar value to compost of this kind is their disintegrated state; they are fit for drilling in along with the seed by corn or turnip drills at once. Their freeness from sand and other heavy and comparatively useless mineral substances is another merit. The difference between the expense of applying farm-yard manure and guano, for instance, is considerable, while the advantages gained by expedition in seed time are even of greater importance. The addition of 50

per cent. of sand and clay as when urine, fish, gut, &c., were mixed with earth, doubles the expense and time of application; and this, if the distance is great, may exceed the value of the manure itself.

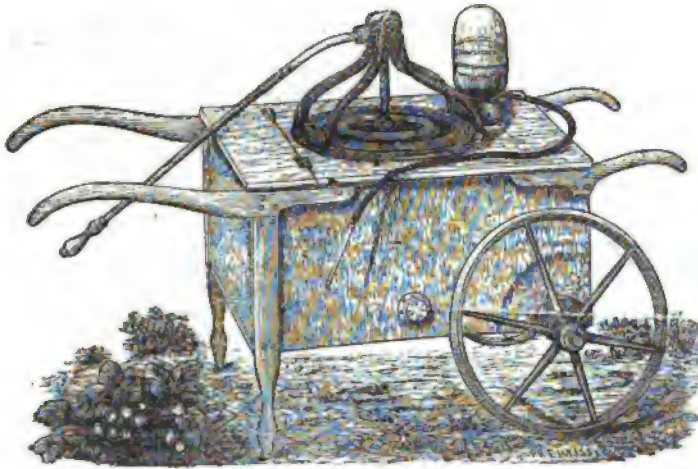
The prime cost of the article would be little more than the carriage, while in most localities the supply would obviously be great. We have only to examine our timber yards for evidence of this. How many ingenious plans have even been contrived for carrying the sawdust down the stream which drives the saw-mill, or into the fire of the steam engine where steam power is used.

Now that artificial manures have become an agricultural necessity, it is the duty as well as the interest of every one to look first to the resources within his own reach for a supply, and lastly to the market for any balance required. To neglect the former, relying entirely upon the latter for Peruvian guano, &c., and then complain of high prices, is inconsistency and folly. Were every farmer to procure annually so many tons of sawdust, ground peat, or charred vegetable matter of any kind, which could be had for little money, and to mix them with the excrements of horses, cattle, sheep, pigs, poultry, &c., adding such other articles as peculiar circumstances required, it would exercise a very salutary effect upon the extravagant prices now paid for all kinds of artificial manures. If a farmer can thus manufacture at home as good an article for 20s. as he can purchase for £5, (and this can be done in many cases,) the course which he ought to steer is plain.—*Agricultural Gazette, England.*

VARIETY OF FOOD NECESSARY.

It is in vegetable as in animal life; a mother crams her child exclusively with arrow-root—it becomes fat, it is true, but alas! it is rickety, and gets its teeth very slowly, and with difficulty. Mamma is ignorant, or never thinks, that her offspring cannot make bone—or, what is the same thing, phosphate of lime, the principal bulk of bone—out of starch. It does its best; and were it not for a little milk and bread, perhaps now and then a little meal and soup, it would have no bones and teeth at all. Farmers keep poultry; and what is true of fowls is true of cabbage, a turnip, or an ear of wheat. If we mix with the food of fowls a sufficient quantity of egg-shells or chalk, which they eat greedily, they will lay many more eggs than before. A well bred fowl is disposed to lay a vast number of eggs, but cannot do so without the materials for the shells, however nourishing in other respects her food may be. A fowl, with the best will in the world, not finding any lime in the soil, nor mortar from walls, nor calcareous matter in her food, is incapacitated from laying any eggs at all. Let farmers lay such facts as these, which are matters of common observation, to heart, and transfer the analogy, as they may do, to the habits of plants, which are as truly alive, and answer as closely to every injudicious treatment, as their own horse.

THE SUGAR PINE OF OREGON.—The sugar pine in the Rogue river county of Oregon attains great size, is remarkably straight, symmetrical and rich-colored. Its crown is as smooth and well shaped as if it had the services of a barber every month.



GARDEN AND FIRE ENGINE.

In our last volume there is a short notice of engines by a gentleman too modest to allow us to use his name, but who is thoroughly versed in the subject on which he speaks, and which we think of sufficient importance to bring into the present volume, and accompany it with an engraving. Of course, if the engine is efficient at a fire it will answer all the purposes desired of it for a garden: its size being so small as to make it portable anywhere.

MR. EDITOR:—In a late number of your paper, in a notice of a garden engine, you say "It will throw water to the height of forty feet, and to the distance of seventy feet horizontally. It may, therefore, be found of use in extinguishing fires in buildings." That remark is in accordance with the general belief of the use of such engines for extinguishing fires. I have no doubt but that if any twelve of your customers who live a mile from a large fire engine, should purchase a small one, and their building should take fire, they would at least eleven of them, run for the large one at the village, and never once think of trying their own, or if they thought of it, would give it up as a foolish idea. A more mistaken idea than this of fire engines, never entered the mind of man. Fire does not wait while we run for engines, but increases in arithmetical progression, and therefore if the engine you have described, will not put it out when first discovered, the largest in the world cannot, if we have to run but half a mile and it then has to be drawn to the fire. I want to see a better description of the new Hitchcock engine. I know its power, and I tell you it is to create an entire change in our fire departments. Hundreds of towns in the State cannot afford to purchase a large one, who could have half a dozen of these; and three of these at proper distances, are better than a large one, because so much sooner brought to work. Again, many towns who have the large one should purchase small ones for the "outsiders," who pay their part of the expense while they are wholly unprotected. But enough for this time. If you

please, I will again trouble you upon this important subject, and now only say that any of your friends who purchase the engine for garden purposes, will have a most useful and effectual fire engine. B.

Watertown, 1853.

For the New England Farmer.

MONTHLY FARMER FOR JULY.

For the first time, my *Farmer* plays the truant, this month. Whether, like some hired-men, it kept the Fourth a little too hard, whether it went as a delegate to some Platform-convention on the inalienable right of periodicals to the pursuit of happiness, or whether it took a fancy to pioneer awhile in Nebraska, concerns me little to know; but after waiting some twenty-odd days, and getting for an answer at the post office, "No, it hasn't come," until tired of it, I finally went to Boston, yesterday, and got my paper fresh from the printing office.—*Item.* One advantage of a farm near the city, is, that when one's agricultural paper fails, he can go the publishers and get another with little trouble.

It is pleasant to see by a glance at the contents of this number, that the *Farmer* is not neglected, although at this season, the fields make so large demands on both thought and effort;—the labors of the editor being lightened and encouraged, this month, by the contribution of between thirty and forty original articles, which discuss a great variety of topics. A bare enumeration of the titles of a few of these articles will indicate the extent of our loss, had we been unable to replace this single number.

Butter.—A string of proverbs for making "Butter;" a cut and description of a dog-power for "Churning;" and a complaint that "the butter wont come." In our boyhood, we once saw an old lady thrust a heated poker into a churning that wouldn't come, with the remark, "It may be bewitched."

Cultivation.—The "Calendar for July" gives hints on a variety of subjects; the "Double Plow" is recommended by "E. J.," of Lebanon, N. H.; and the writer of "Hoeing" says, "we seldom now

see in a corn-field any other than a very low, flat hill, if any hill at all." Those are the kind, I know, that we see in the books, while the corn-fields of farmers in this section show pretty large hills about the roots of corn.

Fruit Trees.—Two articles on "Scraping and Washing Trees;" and two on "Protecting Peach Trees" in winter, by the use of matting. I have seen the use of boughs of Evergreen, leaned up against the peach tree so as to shield its branches, recommended; two kinds of pears described and recommended.

Garden.—"Farmers' Gardens," "What a Garden should be," and "Cultivation of Strawberries."

Insects.—To those whose trees were "burned" by the canker-worm, and whose fruit was destroyed by the curculio, the various articles on insects will be interesting, even though they may afford but little hope of an immediate triumph over these our most dreaded and powerful opponents. "Caterpillars" is a hopeful article; "Habits of Insects," is instructive; two remedies for the "Curculio," one a new one, are encouraging; and so are directions for destroying the "Slimy Slug;" but the article on the ravages of the "Canker Worm," shows that all known preventives have proved only partially effective, and that the evil is increasing; yet in the proposition to raise 500 dollars as a premium for the discovery of a remedy, that spirit of determination is manifested from which much may be expected.

Manures.—On "Decomposing Bones;" "Meadow Mud and Lime;" "Coat of Manures;" and an article by Mr. Holbrook on "The Application of Lime and Ashes for the Improvement of Land." Has Mr. Holbrook ever made parcels of compost alike in all respects except in the addition and omission of lime, and by the respective effects of such composts testing the value of lime? I have tried it on a small scale, in several ways, but have not been able to perceive, with my own eyes, the least benefit whatever to vegetation or soil, either chemically, mechanically or otherwise, from the use of lime. My composts of mud in which lime was mingled have proved very valuable; and just as valuable, for aught I can see, without it. I submit these remarks in the spirit of suggestion; fully aware of the possibility of my observation, instead of the lime, being at fault; and believing, further, that if farmers will not make use of the vegetable deposits within their reach without some admixture to which they may loop their faith, then lime, or salt, or any other material, may be safely and justifiably recommended.

Stock.—"A Horse's Foot" cautions against allowing the animal to stand upon a hot-bed of manure and litter; "Introduction of Domestic Animals" into America; "French Merino Buck;" Editorial hints on "Salting Stock;" on "Cribbing," "Summer Feed for Cows and Pigs;" "South Down Sheep."

Scientific.—"Democracy of Science;" "The Effects of Oxygen in accelerating Germination;" "Production of Buds and Seeds;" "What a Whole Crop carries off."

Advantages of living on Poor Land.—One of those articles that do people good to read, by bracing up the better sentiments of the heart, inspiring gratitude and contentment, and by "vindicating the ways of God to man."

Ellen Jones.—A "Story," illustrating the danger of sending our children away from home to city or village life, even for a brief "Term" of a fashionable school, with the expectation that they will return, contented and happy, to their old occupations and circumstances.

Well Digging.—With this very practical-looking caption, we have a dissertation on "Bletonism," "Biology," "Mesmerism," "Spirit-rapping," "Money-digging" and "electrification," that in my humble opinion, should have been reserved until the people of this world are a little more advanced in knowledge than they are likely to become during this nineteenth century.

There are also three articles on the silk business: one on Wheat in New England; one on Haying; Book-farming a swamp; sensible thoughts about boys on farms, by Willis; Indian modes of storing grain, with a brief account of Colonial agriculture; New plants; Time for cutting Timber; Posts for fence; Winter in Mississippi; The Farmer's Home; Autumnal Marrow Squash; High Prices, Emigration, Sugar, &c., &c.

Winchester, July, 1854.

A READER.

SAVING GRASS SEED.

Many farmers neglect to save their own grass seeds because it needs attention at a time when they are most busy with their grain and hay; but if farmers generally would make it a point to save seed for their own use, they would find their account in it, both in prime cost, and in not being imposed upon by buying foul seed from another man's farm, who had no interest in keeping their land free of weeds.

Orchard Grass is among the first to ripen, and will be ready to cut from the 20th of June to the first of July, according to the location and soil. This should be either reaped or cradled and immediately put in compact shocks, to stand a couple of weeks. The stubble may then be mowed and hayed, taking care not to disturb the shocks. When dry, the shocks should be moved very carefully to the barn for storage, as the seed shells out easily.

Kentucky Blue Grass comes in season for harvest about the same time as orchard grass. The best method of gathering the seed of this grass is by stripping the heads by hand; the process is rather slow, but no other way will bring the seed, in good condition, as it is too light and chaffy to be threshed and winnowed. At the price for which it sells in market, even this slow way pays well.

Meadow Fescue (English Blue Grass) is ripe early in July, and having a tolerably heavy seed, can be cut by the cradle or sickle, and when dry, threshed and winnowed carefully to separate the chaff.

Fowl Meadow Grass ripens its seed in the last of July. We consider this as the best grass that can be raised for meadow swails and marsh lands. It is fine, nutritious and yields a great burden; and like a good natured wife—will bear a great deal of neglect without spoiling. When in head, this grass very nearly resembles red top, and is often mistaken for it. The seed is very fine and sells at a high price—as much by the bushel as clover seed, though much lighter.

Timothy seed ripens in July, and as it is contained in strong heads, it is very easily harvested

and got out, either by reaping, cradling, or with such a machine as Waggoner's clover harvester, simply taking off the heads. We wish to bespeak the attention of farmers generally to saving the best seeds of these leading grasses.—*Ohio Cultivator*.

EXTRACTS AND REPLIES.

MACHINE FOR BRICK-MAKING.

MR. BROWN:—A year or more since, I noticed in some newspaper an account of a newly invented brick-making machine, by means of which the process of brick-making was much facilitated.—By this machine the clay and sand, were ground and mingled, and then subjected, after being passed into the moulds, to a mighty pressure, sufficient to render the bricks capable of being handled and conveyed at once from the machine to the kiln; thus saving the process of sun-drying, turning, &c. At that time, not being particularly interested, I did not preserve that paper. Can you tell me anything of such a machine, of its efficiency, cost, power necessary to drive it, and of the quality of the bricks made by it? If you or any of your correspondents can and will inform me as above requested, and where such a machine can be seen, I shall be much obliged.

Yours truly, E. INGHAM.
Lebanon, N. H., July 15, 1854.

REMARKS.—We have often seen bricks made by machinery. The clay and sand are mixed and pass through a hopper as grain does in the grist mill, and thence into the moulds; the followers then enter the moulds, and the straightening of a toggle joint by steam power gives an immense pressure—so great that the bricks are placed up on a barrow and wheeled away to the kiln with very few breakages. The clay is used in a much dryer state than when used by hand, and consequently there is a liability in machine-made bricks to crumble. But they are made with great rapidity—nearly as fast as a man can take them from the machine, and place them in a barrow.

We believe a machine is now in operation at West Cambridge, directly on the line of the Fitchburg Railroad, three miles from Boston.

THE SEASON IN MAINE.

FRIEND BROWN:—We are suffering badly here for want of rain. The heavens are brass over our heads, grass lands are being terribly parched. corn begins to roll, and everything suffers. The hay crop is coming rather light.

Corn has looked well, but now begins to roll: potatoes are now suffering, and will be light, unless there is rain soon. Agriculture is fearfully neglected here. This county is far behind Massachusetts. Farmers don't plow nor till.

A spinster made application to a neighbor of mine, to buy some hay of her. She said there would be about five tons. He asked how much land. *Sixteen acres*, was the reply. R. D. H.

Springvale, Me., July, 1854.

TALL GRASSES.

Mr. GEORGE WRIGHT, of Acton, Mass., has handed us a sample of Blue-joint and Red-top

grass, which show what these grasses will do under favorable circumstances. The blue-joint is 6½ feet high, and the red-top 5 feet! They were grown on his farm in the south-east part of the town. The seeds of such specimens should be carefully preserved, and multiplied by future sowings.

A NEW KIND OF FENCE.

In a recent number, we gave an account of a new kind of fence in use at Windsor, Vt.; this account was taken from our columns without the proper credit being given, and has been extensively copied into most of the agricultural journals. "Grafton," who has seen the same kind of fence in use in Sullivan County, N. H., will see by the above, the reason why we do not publish his letter. We hope to hear from him on other topics.

RECLAIMING OLD FIELDS—APPLICATION OF MANURES—CALVES GNAWING WOOD

What is the best and most expeditious way of reclaiming old fields that were once good, that are of a medium texture of soil? also those of a cold, sour, heavy soil? (a)

Which is the best way of applying manure,—is it best to put 100 loads on an acre, or put it on 2 acres? You would not call a man very wise to starve one-half of his family for the sake of stuffing two or three. Why should farmers starve one-half of their farm for the sake of raising a great crop of corn? (b.)

Is there anything that will prevent calves from gnawing wood, when in the barn in the spring? (c.)

Although I am not a farmer now, I expect to be sometime, and by answering these questions you will greatly oblige
A SUBSCRIBER.

Ludlow, Vt., 1854.

REMARKS.—(a.) First, drain well—this will yet be considered the beginning of good husbandry; then, on the lighter soils plow seven or eight inches deep, laying the furrow over flat, manure well, and seed down in the last of August. On the heavier soils take the same course, with the exception of laying over the furrows—these should not be left flat on wet and heavy soils, but standing up corner-wise, like a brick laid up on one of its longest sharp edges. The upper edge of the grass is barely covered in as the plow leaves it, and the field, well plowed, will present a series of ridges like the apex of the roof of a barn. After the harrow has gone over it the field has a smooth surface, with no grass in sight, and gives a mellow and sufficiently deep seed bed. This we consider the most *expeditious* mode, but do not mean to intimate that it is a better mode than the ordinary routine of the potato, corn and grain crops, unless it be on low and heavy lands.

(b.) The same sound judgment is to be exercised in the application of manures, that we use in plowing, seeding, building, or any other work done on the farm. It would be folly to turn up ten inches of the subsoil at once where we were

applying only twenty loads of manure to the acre, because the new earth and the fertilizer would be entirely disproportioned—there could be no profit in the result. Nor should we apply a bushel of hard's grass seed to the acre when a third, or one-half of it, is all that such an extent of land requires. The same rule will be in operation in the application of manures.

In answering your inquiry, we must have a basis mutually understood to start upon. It will not answer to take land already rich, nor gravelly knolls that never have been manured,—but the ordinary land of the farm, such as will yield a fair crop of corn, say 40 to 55 bushels to the acre. Then we should reply, unhesitatingly, it is *not* best to apply 100 loads of manure to an acre. On such land, you would probably find as much profit with 50 loads to the acre as with the application of 100 loads. With proper cultivation, and with what aid the atmosphere would impart, we think the plants would find all the nourishment they would require to produce a crop of corn as large as ought to be expected upon a single acre. The common practice, however, is, to spread the manure over *too much land*. The losses in travelling to and from the fields, in plowing, harrowing, furrowing, planting, hoeing, weeding and harvesting the crop, between one and *two* acres, are not estimated with sufficient care. It will not be doubted by any one who makes a fair trial, that it is altogether more profitable to manure liberally and cultivate well, what we undertake, than to go over a larger extent of land indifferently.

(c.) Calves in a perfectly healthy condition will not often contract the habit of gnawing the wood about them. They are too often neglected, do not have sufficient food, are confined within too narrow limits, or are exposed to wet and cold. If the calf is generously supplied with nourishing food, has ample and well-ventilated space and a good bed of dry litter to lie upon, he will not only *not* gnaw the boards, but give you a handsome profit in his rapid growth for the care you bestow upon him.

Will you inform us, at some future time, whether the remedy prescribed is a successful one?

A. R. H., *Lawrence, Mass.*—We thank you, not only for the cash enclosed, but for your good opinion of the *Farmer*. The corn and potatoes you speak of should be covered at different depths according to the kind of land. On a sandy loam one inch would not be too deep for corn: on heavy, wet land, half that distance. Potatoes should be covered somewhat deeper than corn.

THE CANKER WORM.

MR. EDITOR:—A neighbor informed me that all his apple trees have been ravaged by the canker worm, with a solitary exception, and that was surrounded by a quantity of the ashes of anthracite coal. It seemed to me to be a fact that should be known, and perhaps you may deem it worthy of a place in the columns of your paper.

The cause is simple. The worm finds a bed of ashes no place for it to deposit its eggs.

Another eminent fruit grower informs me that he saved his trees after they had been attacked by the canker worm, by once syringing with whale oil soap, (1 pound of soap to 8 gallons water) from a garden engine.

H. P. N.

BONE MEAL.

Will you inform me what bone meal is a pound, when put up in bags of from 15 to 25 pounds, for feeding to cattle?"

E. S. ALLEN.

Jacksonville, Fl., 1854.

At retail, bone meal is sold at 3 cts. per pound—in considerable quantity at 2½ cts.

The inquiry, with regard to the coming in of cows, we cannot answer so that it would be of much value to you.

GUTTA PERCHA PIPE.

EDITOR OF FARMER:—Dear Sir,—I wish to bring soft water from a spring about five rods distant—into my house, but have objection to lead pipe by reason of its tendency to make water unhealthy. I have heard that gutta-percha pipe is an excellent substitute for lead. Can you inform me of its qualities for this purpose, also its price, and where it can be found?

Yours truly, M. W. KIMBALL.

Hopkinton, N. H., July, 1854.

We have sent you a circular by mail containing the prices of gutta percha pipe, as they stood a few months since. Recently, the raw material is scarce, and the prices are higher, and are unfixed.

RELATIVE VALUE OF NEW MILK AND INDIAN CORN.

MR. EDITOR:—Can you or any of your correspondents give the relative value of new milk and Indian corn as fodder for store hogs? It is a matter that I have never known to have been made the subject of accurate experiment, yet is of sufficient importance to merit attention.

M.

Chester, N. H., 1854.

BOVINE WHISKABOUT HOLDERS.

FRIEND BROWN:—A very ingenious, and of course valuable apparatus for holding a cow's whiskabout during the operation of milking, was described and figured in the *Farmer* of last week. A method I have sometimes used, though it cannot lay claim to so much scientific ingenuity, is easily performed, and is perfectly effectual. It is, to hang a chain over the hind quarters of the cow in such a manner as to enclose and press by its weight against the tail. This mode is not yet patented, but I will warrant it to satisfy all who will adopt it.

JONATHAN DOOLITTLE.

Concord, June 26, 1854.

THE CROPS.

FRIEND BROWN:—I am well pleased with your paper, and wish you much success. Our prospects for a good crop in this ancient town are very good. Grass and corn and potatoes look quite well, though probably not more than half as many potatoes are planted as usual, but more corn. Of fruit there will probably be a fair crop, with the exception of peaches; there is no sign of the palmer worm, thus far this year.

N. PIPER.

Stratham, N. H., June 23, 1854.

APPLE POMACE.

In the road opposite my field is a large deposit of pomace lying near a brook that empties into my land. Will you inform me, whether a wash containing so much acid as is likely to come from that deposit, (probably twenty loads,) does not, directly or indirectly, injure my land?

Elliot, Me., 1854.

SUBSCRIBER.

REMARKS.—We should not suppose that what would gradually flow away from such a heap of pomace, and into a brook, would do any harm to the land. But why keep it there? Cows and swine will eat a small portion of it, if fed to them in small parcels, and as it is believed to be rich in mineral matter, would be valuable to them. Mingled with fresh horse dung or ashes, it would be converted into good manure. Why would it not be beneficial to the orchard whence the apples were taken, by being spread thinly over the ground?

RED ANTS.

We cannot tell "W. B.," of Quechee, Vt., what will destroy the red ants of which he complains. The books inquired for may be found at most of the book-stores in Boeton.

FOOD FOR HENS.

Will you state through the *Farmer*, what, in your opinion, is the best food for hens at this season, to enable them to lay, and oblige yours,

Woburn, June, 1854.

A. M.

REMARKS.—Hens always need a *variety* of food in order to make them lay freely. If they are confined at this season of the year, they will require plenty of water, shade, pure air, comfortable places for roosting and laying, corn always before them, plenty of old lime, mortar or pounded oyster shells, together with a little flesh, scraps, fresh fish and tender grass.

PROFITS OF SHEEP.

Having seen in the *N. E. Farmer*, of April, 1854, an account of the profits of sheep in Maine, and having some which are considered pretty good, I send you the income of eight which I wintered in 1853. Lambs, twenty-seven dollars; wool nineteen dollars—whole amount forty-six dollars; for each sheep five dollars, seventy-five cents.

Will you inform me whether, in applying ashes to corn, it would be equally beneficial to mix with manure and put it in the hill, as to apply at the roots on the surface?

Ludlow, June, 1854.

A. S.

REMARKS.—We think it better to apply the ashes at the first hoeing and cover it.

BUTTER.

MR. BROWN:—Will you or some of your readers please inform me through the *Farmer*, whether lump butter packed in brine, will keep as well, and come out with as good complexion as when put down in tubs *solid*, as is usually done? Also, whether the price will be as much, more, or less than tub butter, in market?

Randolph, Vt., 1854.

N.

GARDEN WALKS.

Will you or some of your correspondents inform me whether coal tar will answer to cover garden walks? I have seen it used in England, where it proved well, but I do not know how to use it, and wish to be informed.

M. HUTCHINSON.

Griggsville, Pike Co., Illinois.

For the New England Farmer.

TIME FOR CUTTING GRAIN.

MR. BROWN:—Dear Sir,—I send you the following extract from Stevens's book of the farm, as it is very pertinent to your last week's editorial; and let me here say that common honesty demands that every one extracting matter from books, ought in their use of them to give credit for the source of their information. On farming, gardening, &c., there are a few standard books, and I never see an agricultural paper that I do not find matter put forth with no credit given to anybody that I can turn to some book and find in almost the very words of the writer in the paper. Books are common property, but it is no more than common justice to an author to give him credit for his matter. I would, were it not for the invidiousness of the job, analyze many of these articles, and give justice to whom justice is due.

The following experiments were made in England, by Mr. John Hannam, North Deighton, Yorkshire, and of course are equally valuable to us, and even more so to us than to English farmers; owing to the heat of our summers, grain ripens much more rapidly, and gains much more per diem, than in England, and needs earlier comparative attention.

No. 1, reaped quite green, 12th August, and stacked the 26th, gave a return of £11 17s per acre, (about \$59.08.)

No. 2, reaped green, 19th August, and stacked the 31st, returned £18 6s, (about \$66.44.)

No. 3, reaped raw on the 26th August, and stacked 9th September, returned £14 17s 4d, (about \$74.12.)

No. 4, reaped ripe on the 9th September, and stacked the 16th, returned £13 11s 8d, (about \$67.76.)

A loss of £1 14s 8d (\$9.50) on No. 1, compared with No. 5.

5s 8d (\$1.37) on No. 2, " " "

A gain of £1 6s 4d (\$6.50) on No. 3, " " "

" £1 5s 8d (\$6.27) on No. 4, " " "

" £3 1s 0d (15.24) on No. 5, " " No. 1.

Wheat reaped a fortnight before it is ripe gives an advantage on every point:—

In weight of gross produce of 13 1-5 per cent.

In weight of equal measures 4 per cent.

In weight of equal number of grains of 2 1/2 per cent.

In quality and value above of 3 1/2 per cent.

In weight of straw above of 5 per cent.

Other chances are, straw of a better quality, a better chance of securing the crop, and a saving in securing it, no loss by grain tilting out of the head.

Respectfully,

R. MORRIS COTELAND.

Lexington, July, 1854.

ON THE FEEDING OF ANIMALS.—We have spoken in high terms of *Johnston's Elements of Agricultural Chemistry*, and have copied pretty freely from its pages, on several subjects. We propose now to give a chapter or two on the important topic of *Feeding Animals*, which we are sure our readers will find written in a clear and succinct style, and with such common, practical good sense, as to commend the subject to the

most casual observer. Accordingly, in another part of the paper, we give a column or two on a matter, which we all, as farmers, ought to understand better.

The whole work is one of great interest to all cultivators and one which we should recommend to every young farmer.

PINE WOODS PASTURE AND SOUTHERN COWS.

Hundreds of cows that range in the pine woods of the Southern States, do not give a quart of milk a day, and we have often seen the milking of a cow in a pint cup without filling it. The animals are generally poor, small, scragged creatures, and their calves look like foals of the mother of the woolly horse. It is a common thing that planters with large herds have to buy butter and go without milk. The deficiency is generally charged to the climate. This is not the cause. The truth is to be found in the fact that the natural grass of the extensive pine lands of all the Southern States is almost entirely destitute of phosphate of lime, without which the cow cannot produce abundant milk; her calf cannot grow rapidly, for it gets no bone material.

Don't say, "What fools; why don't they add phosphates to their soil if it is destitute of that important ingredient of fertility?" Look in the glass—see yourself. Look at your own pastures. They may not be as bad—they may be made better.—*New York Tribune.*

We have frequently heard it asserted that the natural grasses of the Southern States "are almost entirely destitute of phosphate of lime," but we have never seen any satisfactory proof of the fact. Will the *Tribune* enlighten us on the point? We do not say that it is not a fact, but if it be one, it is too important, in a scientific and practical point of view, to rest on mere assertion.

A cow could not produce milk at all from food destitute of phosphate of lime, and the calf not only "would not grow rapidly without bone material," but it would not grow at all. On a soil destitute of phosphates, no plant capable of sustaining life can grow. If it is deficient, the produce will be deficient; but the proportion of phosphates in the plant will be the same. We have no proof that, by manuring plants with phosphates, we can increase the relative proportion of phosphates in the plant, while we have abundant evidence that the reverse is frequently the case. Thus, turnips manured with superphosphate of lime, contain less phosphoric acid than those manured with sulphate of ammonia; and it is certain that the quantity of phosphoric acid a plant contains is no index of its comparative nutritious value. Were it so, an immature plant would be more nutritious than one perfectly elaborated, the leaves of turnips twice as nutritious as the bulbs, and bran vastly more nourishing than fine wheaten flour; all of which, experience, inductive experiment, and common sense, pronounce erroneous.—*Rural New-Yorker.*

WHEAT.—The growth of wheat in the United States has increased within the last ten years, at the rate of 48 per cent., while in the two Canadas

it has increased during the same period at the rate of over four hundred per cent. Indian corn is perhaps the article by which the fairest estimate may be drawn between the States and Canada. Taking that as a basis, we find that the increase in the United States between 1840 and 1850 has been equal to 56 per cent., while the increase in Canada of the same article for the last nine years has been 163 per cent. The comparative increase in oats has been similarly extensive.

Ohio, in 1850, produced 14,487,251 bushels of wheat, while Canada, with a much smaller number of acres under cultivation, produced the same year 16,156,946 bushels. The average produce, per acre, in Ohio is 12, and in Canada 14 1-5 bushels. Ohio produces a little over 1-7 part of the wheat raised in all the United States, and Canada a little less than 1-6 part of that amount.

COVERED AND UNCOVERED MANURE.

EXPERIMENTS BY LORD KINNNAIRD, ENGLAND, WITH COVERED AND UNCOVERED MANURE:

With uncovered Manure.

		tons. cwt. lbs.			
1st measurement—1 acre produced	7	6	8	of potatoes.	
2d do.	1 do.	do.	7 18 99	do.	

With covered Manure.

		tons. cwt. lbs.			
1st measurement—1 acre produced	11	17	26	of potatoes.	
2d do.	1 do.	do.	11 12 56	do.	

As soon as possible after the potatoes were harvested, the field was cleaned, plowed and wheat drilled in, at the rate of three bushels per acre. As soon as the weather was suitable in the spring, the whole field got a dressing of 3 cwt. of Peruvian guano per acre. During the winter very little difference was apparent; but shortly after the application of the guano, the wheat on that portion manured by the covered dung took a decided lead, which it retained all summer. The whole field was cut on the 26th of August, 1852; the portion manured by the uncovered dung being at least four days earlier than the other. As before, the two separate portions in each half of the field were measured, cut and stooked separately. On the 4th Sept., each portion was threshed, the grain carefully measured, and the straw weighed. On account of a wet season the grain was of lighter weight than usual, in Great Britain, per bushel. The result of the experiment was as follows:

With uncovered Manure.

Produce in grain.			Weight per bush.	Produce in straw.	
acre.	bush.	lbs.		stones	lbs.
1st	41	19	61 1/2		162 of 22
2d	42	38	do.		180 do.

With covered Manure.

			Weight per bush.		
1st	2d	3d		4th	5th
85	5	61		220 of 22	
53	47	61		210 do.	

These and similar experiments have satisfied Lord Kinnaird of the advantages to be derived from having farm-yard manures put under cover. They seem so conclusive and instructive on this point as to deserve to be brought before the farming classes of this country. Not a few of your readers, we doubt not, will take measures of some kind to profit by them. It will require but a few minutes to determine the probable profits

of protecting any certain amount of yard-manure. It appears from the above results that Lord Kiinnaird got about 125 bushels of wheat more from the ten acres manured with covered dung, than from the ten acres which had been manured with the uncovered. In wheat alone, then, without taking potatoes or wheat straw into account, the difference in favor of covered manures was quite considerable.

This would seem to render it evident that manures are subjected to great loss of fertilizing power by exposure to heats and storms. The experiment here given does not note the extent of the exposure.

VIEW OF FARMS.

By reference to our advertising columns, it will be seen that the Committee on Farms for Middlesex County, propose to commence their annual tour of examination about the first of September. It is their duty to examine entire farms, also meadows, orchards, cranberry meadows, forest trees, &c. &c. This competition on entire farms has not heretofore been wide enough. The committee feel confident that there are well-conducted and profitable farms in every part of the county that have not been officially examined, and upon which no report of the mode of management has ever been given to the people. It is hoped that this year the applications will be more numerous.

ADVERTISING DEPARTMENT.

A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....50

The above rates will be charged for all advertisements, whether longer or shorter.

Super-Phosphate of Lime.

THIS celebrated Fertiliser, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime.—"DeBurg's No. 1."

Poudrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

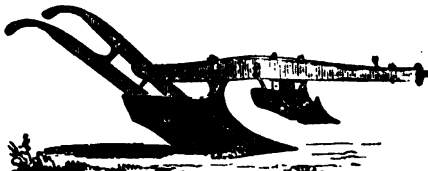
5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

THE BOSTON AND WORCESTER EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility:

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop:

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary:

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverisation accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

Cranberry Plants.

BELL, or Egg shaped Variety—commonly raised in New England, and no doubt is the best variety for cultivation—they are hardy and prolific—sometimes produce over 250 bushels per acre, after 2 years, and needs but little cultivation. Circulars relating to culture and price will be forwarded to applicants.

F. TROWBRIDGE,

New Haven, Conn.

Feb. 18, 1854.

tf*

Fruit and Ornamental Trees.

The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines &c. 1000 Buckthorn and Arbor Vitae for Hedges.

S. & G. HYDE.

Newton Corner, March 18, 1854.

w*tf

J. H. HAMMOND,

ARCHITECT.

THE subscriber offers his services to those about erecting new, or altering old, buildings. He will furnish drawings and working plans, specifications, and every thing in relation to a clear understanding of what is wanted. He thinks he is able to present some new views in the construction of Barns, or in altering old ones, whereby more conveniences may be obtained and at less expense. His charges will be so moderate as to enable every farmer to avail himself of his services.

Address J. H. HAMMOND, Grafton, Mass.

May 27, 1854.

Bull Calf for Sale,

Dropped June 29th, by a very superior 3 year old heifer, who is full blooded Durham and Ayrshire stock, and sired by the fine Jersey Bull, belonging to SAMUEL HENSHAW, Esq. Apply to

J. J. DIXWELL,

66 State Street, Boston.

July 8, 1854.

tf

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EDWARD HARRISON'S
PATENT GRIST MILL

Received the highest premium at the World's Fair; and more than two hundred and fifty of them have been sold within two years. The stones are French Burr; the frames and hoppers, cast iron; and the spindles, cast steel. They will work both for flouring and on all kinds of grain, and will keep in repair longer than any other mill. Having just completed my new buildings, for manufacturing and running them, I am now prepared to supply all orders for all the sizes, from twenty inches to four feet diameter, including a superior farm and plantation mill, which will grind corn in the best manner, by horse power, or even by hand. Public attention is invited to this small mill in particular. Descriptive circulars, with cuts, sent to post-paid applications.

EDWARD HARRISON,
Sole manufacturer, and proprietor of the Patent.
New Haven, Ct.

April 29, 1864.

6m

Ray Grass.

300 BUSHELS Perennial Ray Grass.
100 bushels Italian Ray Grass.
These valuable grasses give a rapid and handsome growth for lawns, and the crop, which should be cut three times during the season, makes a sweet hay or a valuable green feed for selling. For sale by PARKER, WHITE & GANNETT, 47, 59 & 63 Blackstone Street, Boston.
July 8, 1864.

4w

AGRICULTURAL

WAREHOUSE AND SEED STORE,

QUINCY HALL, OVER THE MARKET, BOSTON.

THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

OF PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—Improved Scotch Ploughs for lapped furrows—Improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and other Patent Corn Shellers, with and without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes, Horse Powers, Threshing Machines, Thermometer Churns, Dash Churns, Corn Plankers, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post-paid.
RUGGLES, NOURSE, MASON & CO.
Boston and Worcester, Mass., Jan. 1, 1863. *tf*

Morrill's Ditching Machine,

PATENTED MAY 10, 1863.

A NEW, cheap, and useful implement for ditching soft land. Operated by two men, without the aid of horses. Application for machines or rights may be made to the subscriber. JONATHAN W. MORRILL, Hampton Falls, N. H., or W. RUGGLES, NOURSE, MASON & CO., Boston.

Boston, Sept. 13, 1863.

Mr. J. W. MORRILL:—Dear Sir,—I have this day put in operation on my farm in Ipswich one of your Patent Ditching Machines. The land selected for trial was a salt marsh, bounded by upland on one side, on the other by a creek; we had therefore an opportunity of testing it on both hard and soft land. I have great pleasure in stating that the machine worked to my entire satisfaction, although it was used by two men who had never before seen one in use. They cut a ditch at the rate of over six rods per hour, 2 feet four inches in depth. I consider it a very valuable labor-saving machine. Yours truly,

J. NOURSE.

We, the undersigned, have seen Morrill's Patent Ditching Machine in operation, and certify that we think it far superior to other modes of ditching, and consider it a very valuable labor-saving machine.

DAVID NUDD, Hampton, N. H. ROBERT DOW, Salisbury, Mass.
J. M. PALMER, " ABEL MORRILL, " "
JOHN B. BROWN, Hampton Falls. THOMAS PIERCE, " "
JESSE LANE, Hampton Falls. MARK B. TATZ, " "
MOSES TRUE, Salisbury, Mass.
May 27, 1864. *tf*

Oyster Shell Lime.

I HAVE on hand, and am constantly manufacturing this article for farming purposes. It has also been extensively used during the last season for laying the walls of cellars, and stone work of a similar nature, and is found to answer this purpose equally as well as the best stone lime. After 1st March, the prices will be as follows:

For less than 50 bbls.....50c
Or over 50 bbls.....40c
In Bulk—a large car load containing 80 bbls.....30c
A small car load containing 40 bbls.....35c & bbl.

delivered at either depot in Boston or Charlestown.
JAMES GOULD,
Feb. 13, 1864. *tf* 70 State Street

To the Farmers of Middlesex.

THE Committee on Farms, of the Middlesex Agricultural Society, hereby give notice that they will commence their view of Farms on or about the first of September. Those persons desirous of competing for the premiums, are requested to notify either of the undersigned at an early day. From a pretty thorough examination of the farms in the county in former years, the committee believe that there are very many highly worthy ones for examination, and that ought to be reported upon—they therefore hope the applications will be numerous.

CHARLES BARRIDGE,
SAMUEL CHANDLER, } Committee.
SAMUEL BROWN.

Concord, July 22, 1864.

3w



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, SEPTEMBER, 1854.

NO. 9.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH } EDITORS.

CALENDAR FOR SEPTEMBER.

"But brown comes the autumn, and sere grows the corn,
And the woods like a rainbow are dressed;
And but for the cock, and the noonside hour,
Old Time would be tempted to rest.
The humming-bee fans off a shower of gold,
From the mullein's long rod as it sways,
And dry grow the leaves which protecting enfold
The ears of the well-ripened MAIZE."

W. W. FOSDICK, OF N. Y..



SEPTEMBER, the first of the Autumnal Months, brings with it new aspects of the year, and calls up a new class of emotions

in the heart, to those who love nature, and find pleasure in observing her ways. Now, the voices of nature have materially

changed. The lark, the bob-o-link, the swallow, that so lately allured us into the fields, are no longer heard; the early morning song of the robin is sadly broken, and deficient in tone and compass, while the plaintive note of the blue-bird is only faintly heard at longer and longer intervals. So new classes of insects utter their voices day and night, and claim the season as their own. They are as earnest and active in their calling, as were the May-flies, the June-bugs, the beetles and borers and bugs of every hue and name.

So new aspects are presented by the vegetable kingdom. Where freshness, fulness and beauty lately prevailed in the flowers, the growing plants, and shrubs and trees, age and perfection have now marked them with the first touches of decay. "The woods and groves, those grandest and most striking among the general features of the country, towards the end of the month begin to put on their richest looks. The firs are gradually darkening towards their winter blackness;

the oaks, the poplars, the horse-chestnuts, still retain their darkest summer green; the elms and beeches are changing to a bright yellow which produces, at a distance, the effect of patches of sunshine; and the sycamores are beginning, here and there, to assume a brilliant warmth of hue, almost amounting to scarlet." But nothing among us exceeds in beauty and richness, our noble forests, where the beech and birch, the white and red maple, the elm, the ash, the walnut and oak, with their endless variety of colors flashing in the sun, are magnificently studded with here and there a hemlock or pine or spruce towering above them all. Less conspicuous than these, but admirably filling the picture, are the dog-wood, the sassafras and blueberry, the alder, hazelnut, and berberry, all with their ever-changing colors and charms.

SEPTEMBER is a pleasant month in which to travel. The systematic farmer, whose well-matured plans up to this time have been completed, may now take his wife or daughter and make those social and profitable visits which really give to life a value never felt by those who have not toiled for their bread. In these visits—not made by the rail, however—he may gather much from the experience of others, and from an observation of their modes of management. Every visit cannot fail to add something valuable to the common stock of knowledge which he possesses; give him an idea of some new mode in plowing, planting, harvesting, disposing of stone, erecting fences or buildings; or in reclaiming, or draining, or composting. Each individual has a turn of mind, or taste, peculiar to himself, that leads him, perhaps, to investigate and settle some question for which others about him have felt no interest. So we must do for him; and this makes up the sum of human knowledge. Such visits will thus become profitable, as we have stated, as well as agreeable. They will afford subjects for pleasant family conversations of many a winter evening,

over the fragrant tea and the smoking barley cakes.

Many of the manipulations of the farmer for September, are such as are also applicable to, and were suggested in, August.

SEED CORN—should be selected in the field, and from early, thrifty stalks, which contain two or three ears. If this were faithfully attended to for several years, our corn might be much improved in earliness and fullness of the ears. Trace and hang it up in safe places.

SOWING WHEAT.—Sufficient directions have recently been given in these columns on this point. It will be well to wash the wheat in strong brine before sowing; the salt will benefit it, and it will separate the light kernels and chaff, and perhaps some false seeds, from the wheat, which may then be removed. The earlier it is sown in September the better will be the prospect of a good crop.

RYE.—Early sowing of this crop, too, is important to success.

FATTENING ANIMALS.—No time should be lost now in this branch of husbandry. Whatever the animals are, feed plentifully, and make them perfectly comfortable, and they will gain much faster now than in cold weather. A variety of food is better than to confine them to a single article.

HARVESTING.—After making trial in three ways, viz., topping the corn, cutting it up at the ground and shocking; and leaving it untouched until the leaves and stems were dead; we have come to the conclusion that the best way is—both in point of economy and convenience—to top the corn when the spindle and a little of the stem below it is dry, and leave the remainder in the field, no matter, if the weather is moderate, if until into November; the grain will not hurt. In topping the corn the grain is undoubtedly diminished; but the quality of the fodder will make up for this, and all the labor of harvesting the crop in this way is greatly more convenient and pleasant.

POTATOES—of late years—have required early harvesting.

TURNIPS,—ruta bagas, cabbages, may be left late, as they are not injured by light frosts.

• **CARROTS** should not be exposed to frosts.

APPLES are better gathered a little late, but not exposed to heavy frosts.

A SEASONABLE HINT.—As the cold season is at hand, and economy in fuel is a subject of some importance, it may be well to mention a very simple way of shutting out the cold from our dwellings, and thereby adding much to the comfort of home. Those who are annoyed by the clatter of windows when the mercury is considerably below zero, and by a current of air sufficiently strong to turn a good sized wind-mill, can easily obtain relief by attending to the following directions. Procure a shilling's worth of *list* from the tailor, and a paper of *small tacks* from the hardware store.

On the first pleasant day take out your windows, and tack a strip of list, of suitable thickness, on the outer edges; so that it will be entirely out of sight—return the sash to its place, and your job is done. By this simple process almost any room may be rendered delightfully warm, and the wife and children remarkably pleasant. Try it.—*Cleveland Free Democrat*.

AGRICULTURE—Its Essentials and Non-Essentials. Including an Examination of the Properties of Guano, and other Manures. By H. N. FRYATT, of Belleville, N. J. T. S. Magagnos & Co., Publishers, N. Y.—This is a pamphlet of 60 large pages, attempting to show, briefly, what the earth and the atmosphere supply to plants, and what the cultivator himself must supply. The writer states that the atmosphere furnishes carbonic acid, ammonia, nitrogen and water, and that these serve in the gaseous form to sustain the plant after it has acquired leaves; the leaves absorbing these gases in company with water, decomposing and depositing the carbon and nitrogen in the seeds.

The soil—he says—in addition to its supplies from the air, contains within itself an inexhaustible supply of carbonic acid and ammonia, from the slow decay of its *humus* (woody fibre) and the countless myriads of insect and vegetable remains.

He condemns the ammonia theory, upon which Prof. LIEBIG started, but which he has in a great measure abandoned. He states that ammonia is supplied in all climates and situations, in greater excess than carbonic acid, according to the relative wants of vegetation. In short, that there is no need, whatever, of purchasing ammonia.

The three great essentials which he states must be supplied artificially, are,—the pulverization of the soil by plowing, spading, hoeing, &c.,—by caustic lime and phosphate of lime—bones.

We are not sufficiently versed in chemical lore, to declare whether all his statements and reasoning are right or wrong, and can only say that to us they appear plausible and well considered. At any rate, we have had more interest excited in reading the pamphlet, than in perusing anything of a kindred subject for some time. We shall test some of his assertions on our own farm, and if they prove correct, shall find the management of our crops less difficult and expensive than we have heretofore.

THE BUTTERFLY PLANT.—The *National Intelligencer* says that a specimen of the singular and beautiful "butterfly plant" is now in bloom at the National green-house in Washington. The blossoms are very large and yellow, with reddish brown spots, and are moved to and fro with every breath of air, so as to resemble very much the gaudy insect from which it derives its name. The plant was brought from the Island of St. Thomas in the U. S. frigate *Raritan*.

AN AGRICULTURAL EXHIBITION IN ENGLAND.

Mr. Mechi, formerly a successful London merchant, now the most enterprising and liberal improver of Agriculture in Europe, annually invites a considerable number of persons interested in industrial progress to visit his farm just before his summer grain is ripe, and see what he is doing, and with what success. The *London Times* gives an account of his gathering this season, which we publish this morning in the hope that it will suggest and promote improvement in the conduct of our county fairs, now too generally mere shows of mammoth products without giving the assembled farmers any clear idea of what they have to do, if they would rival or exceed those productions. Mr. Mechi's meetings are, for practical purposes, worth a dozen of these barren displays, and we hope they will find imitators here. Twenty good farmers can walk over their own farms and explain their successful experiments where one can make a set speech; while one such explanation is worth twenty average speeches.—*N. Y. Tribune*.

Mr. Mechi's annual gathering at Tiptree is certainly one of the most agreeable events of the agricultural year. Though the circumstances which first gave a special interest to these meetings have happily passed away, they still continue highly attractive. In endeavoring to stimulate improvements in husbandry, the enterprising tradesman of Leadenhall Street has created an occasion which every one who partakes of it enjoys. To his visitors from town, a reasonable excuse for escaping out of London during the dog-day heats is of course exceeding welcome. To those engaged in country pursuits, there is the feeling of curiosity to gratify as to a system of farm management much talked about, and departing in many respects from the routine of agricultural practice. To all, there is the pleasure of inspecting excellent crops, and observing how the oldest and most delightful of human occupations is progressing. Man, however much he may be modified by circumstances, never loses entirely his natural taste with reference to the cultivation of the soil. He may know nothing or next to nothing about it, but the treatment of mother earth, so that in due season she may yield her increase, always retains some interest for him. It is therefore little short of the supply of a public want at which Mr. Mechi now aims in his annual gathering. He began by inviting inspection in order by the force of example to give an impulse to improved cultivation. He still perseveres, and not without effect, in the same direction; but these meetings have acquired gradually an established character, looked forward to by numbers of people belonging to different spheres of life, coming from remote parts of the country, and attracted even from abroad.

Yesterday the 300 or 350 guests who visited Tiptree included peers and members of the House of Commons, civic dignitaries, men of science, heads of Government departments, engineers, writers on the science and practice of agriculture, a fair sprinkling of the clergy, implement-makers, Commissioners from foreign States, and a large number of farmers. It will thus be seen that this year's meeting surpassed in the variety of interests and intelligence composing it that of any former one, and Mr. Mechi may very fairly be congratulated

on the usefulness of a career which, after having exposed him to much ignorant ridicule, is at length applauded and honored by such an assemblage. He has made failures, as what bold, adventurous man does not occasionally? He has gone to work rather expensively sometimes; nor is it difficult to point out defects even now in his farming. Take for example the old-fashioned plan of laying out the land in beds with furrow drains, thus rendering the application of machinery to its surface unnecessarily difficult. Still one is pretty sure to find all the novelties in agricultural improvement prominently displayed at Tiptree, and, if the experience of succeeding years sometimes detracts from the value of these as gauged by their sanguine promoter, he at least keeps moving in the right direction. Everybody now acknowledges that, whatever be the state of his balance-sheet, he has done an immense deal of good. As far as the public are concerned, that is the main point; for if a man's mistakes or pecuniary sacrifices benefit them, they are only the more bound to feel obliged to him.

But, turning from these general considerations to the details of yesterday's visit, let us endeavor to sketch the proceedings and the results which they present. According to his usual plan on these occasions, Mr. Mechi took his guests, after a slight repast, into his fields; and here, passing rapidly from point to point, he explained with a volubility and happiness of illustration peculiar to him everything that possessed interest, or upon which information was desired. Now, on the confines of his farm, he complacently contrasted his neighbor's wheat with a piece of his own adjoining it, stating why the one was better than the other, and the probable value of the advantage gained. Next he was standing before a fine field of oats, dilating upon the importance of thin sowing, answering vivaciously a sustained fusillade of questions, and promising himself a return of from 11 to 13 quarters per acre upon the crop. Then come the liquid manure distributor, with its hose scattering around it showers of refreshing aliment for plants. In five minutes Mr. Mechi had told his visitors all about it—how quickly the fertilizing products of his feeding sheds were on the land—in what quantity he could apply them—how digestible and direct the form in which they were presented—how wonderful the results in vegetation which they yielded; the mechanical and chemical details of the process were dashed off in a few sentences, the folly of not utilizing town manures in the same manner inculcated, and immediately afterward visitors and hosts were before one of Garrett's best portable threshing machines which the manufacturer proceeded to explain.

Mr. Mechi had, some time ago, tested at Tiptree, an American invention of this kind, and, nothing daunted by the present excellence of Garrett's, described its superior merits in some respects, urging the implement-makers to get rid, as much as possible, of the reciprocating action in their machines, to produce them lighter and cheaper, to work out the problem of steam cultivation, and generally to go ahead. In this manner he took his guests from field to field, stopping at one point to show the spring running 40,000 gallons a day, with which he liquifies his manure, at another to explain his mode of folding and feeding sheep; again to read a letter from Mr. Kennedy, the

Scotch agriculturist, recording what a surprising increase of food for stock he has obtained by the use of liquid manure. His grain and mangold crops excited general admiration, and on no former occasion has he shown anything like them. The wheats especially are magnificent, up-standing, even in growth, large-eared, and so high that some adventurers who started out to explore a field sown with "Payne's Defiance" were at once shut out of view by the waving and luxuriant mass of vegetation. In the management of his Italian rye-grass, Mr. Mechi's farming shows to the least advantage; but for this, as Mr. Caird very properly observed after dinner, the dry climate of the eastern countries is somewhat responsible. In making the round of his farm, Mr. Mechi delivered a succession of short but very amusing and vigorous peripatetic lectures on every important point connected with agriculture. His visitors were delighted with the freshness, good humor, the volubility, and, in the main, the soundness of these expositions. They certainly have a stamp about them which nobody but Mechi could give, and his field preachings on agriculture are alone worth travelling a long distance to listen to. There was not time left before dinner to examine the feeding-sheds, the stock, and the general arrangement of the homestead, but enough had been seen to satisfy the keenest appetite for improved cultivation. Smart exercise in the fresh air had now brought a large proportion of the guests into a frame of body and mind thoroughly calculated to do justice to the ample provision which their host had prepared for them. In a spacious tent, erected for that purpose, they sat down to the number of nearly 300, and there the evening was most agreeably terminated in that round of toasts and speech-making which seems an indispensable condition of festive meetings in this country.

SQUIRRELS IN THE WOODS.

There are few things more pleasing than to lie upon the grass on a sunny day in Summer, and watch the squirrels in the trees above you. Peering up, you will espy, on one of the tree stems, a little brown monkey-fied-looking rat, with a sort of rabbit's head, and a foxy tail as long as its body, and curling over it, and *ecce* my lord squirrel! Down he comes, leaping from branch to branch, clawing, racing so fast, and now he reaches the turf and sits upon his hind legs, and looks this way and that, and listens. Do not move, or he is off; do not wink so much as an eyelid. "All right!" his merry brown eyes seem to ask. Yes, all right; for a nut drops from between his teeth into his fore paws, and giving his mighty consequential tail an extra curl, he makes ready for breakfast. That is another sight—the way in which a squirrel deals with a nut. First of all he shakes and rattles it, that he may be sure there is something inside; then he twirls it round and round in his paws, till he gets the narrow end uppermost, for he knows that the upper end of the shell is the thinnest; then he begins to grate and file till he has wormed his way through, getting noisier and noisier as the hole gets bigger; and then comes intervals of quiet, which means that his teeth are in the kernel, and that he is eating all within his reach; for a squirrel never has patience to wait till the kernel is clean out; he eats by installments in the shell, and trust him for get-

ting the whole of it! Well, after the nut, he will perhaps pick the bones of an apple, if there be one within reach; and when he has had his fill he will wash his face with his paws, and his paws with his face, and, feeling quite clean and spruce and comfortable, he will roll over on the turf, making funny little noises and giving queer little jumps, and then away! up the next tree stem, clawing, leaping, swinging, so fast, so fast,—up and up, till your neck is out of joint with watching him, and he is lost among the leaves.

For the New England Farmer.

THE DROUGHT IN NORTHERN VERMONT.

MR. EDITOR:—The severity of the drought in this vicinity, probably exceeds that of any other year within the recollection of the oldest inhabitants. Five years ago this summer was called the extraordinary dry season, and every summer since might very properly be termed a dry season, but the drought this year by far exceeds that of any other of the "dry seasons." Most of the country north of the Winouski river to Canada line has suffered more or less. In Lamoille County, not only the low land in the valleys, and the farms of dry and sandy soil, have suffered, but hill farms, and those that extend on to the sides of the mountains—farms that are naturally wet—and were not injured by former droughts, have been very much injured this summer.

The farmers have not cut probably more than half of the usual crop of hay, and the same may be said of oats and potatoes; and corn not much better, though there may be some fields that are tolerable. There are many fields of most all kinds of crops that are almost an entire failure. It seems as though the "barren clouds" could never look green again. The pastures are "very short" and very much crisped up, as are also the meadows that have been mowed. Many of them look as if they had been bleached. If there should come sufficient rain, at this late hour, it would hardly benefit very much any kind of crop; even potatoes are considered "too far gone," to be much benefited, though it would help grass land and fall feed; as it is, stock find it rather close picking to get their living now.

The advance prices of farm produce in this vicinity, within a year or two, have encouraged farmers to take hold with new energy; but the failure of their crops this year, causes some to wear rather long faces. There has not been one soaking rain here this summer, nothing but a few slight showers.

I will mention one singular phenomenon that is happening to some of the potatoes in this vicinity; potatoes that were planted about the middle of May, by the middle of August, bore new ones, nearly half-grown, about as large as they would be this year, owing to the drought; but the curiosity is, the new ones have sprouted and come up. I saw yesterday (the 17th) some with sprouts a finger's-length long, as they had got out of the ground, though the old tops were green. Is it a freak of nature—an extra effort to "bring forth and multiply?" Or might it not be the drought stopped their growth, and after a shower the warm weather caused them to sprout and grow? *Morrisville, Vt., Aug. 18, 1854. J. M. C.*

ANIMAL LIFE.

Incapable as water may seem to be of affording anything like solid nutriment, yet there are some tribes of animals that appear capable not only of subsisting upon this, but upon even the still less substantial diet,—air. Leeches and tadpoles, besides various kinds of fishes, (among which is the gold-fish,) will live upon water alone. Numerous experiments have been made by philosophers to test the truth of this matter beyond peradventure. Rondelet kept a silver-fish in pure water alone for three years, and at the end of that period it had grown as large as the glass globe that contained it. Several species of the carp kind, it is said, have a similar power; and even the pike, one of the most voracious of the finny tribes, will thrive upon water in a marble basin. All kinds of amphibious animals are particularly tenacious of life, and not only frogs and toads, but tortoises, lizards, and serpents, are well known to have existed for months, and even years, without other food than water, and, in some cases, only air. It is stated on good authority that a person once kept two horned-snakes in a glass jar for two years, without giving them anything. It was not observed that they slept in the winter season, and they cast their skins as usual about the 1st of April. Lizards have been found imbedded in chalk rocks, and toads have been discovered in wood, blocks of marble and other situations, where, to all appearance, they must have been entombed for many years. Snails and chameleons, it has been repeatedly asserted, will live upon air alone. It is also said that spiders will live on the same light diet, and that, though they will devour other food, they really do not need it to support life. Laterille confirms this statement by an experiment which he made with a spider, by sticking it to a cork, and precluding it from communication with anything else for four successive months; and, at the end of that time it was as lively as ever. A writer in the Philosophical Transactions states that he kept a beetle in a glass confinement for three years, without food. The larvæ of ants are not only supported on air, but actually grow in bulk. It would appear however from experiments made by M. Goldberry, 1786, that the usually received opinion that the chameleon feeds on air is a vulgar error. He subjected seven of them to this ordeal, and they all died save one, in three months and twenty-three days. So it would appear that they could survive, like many other animals, for a time upon the oxygen the atmosphere affords, but could not subsist upon it continuously. The instances we have cited, however, are sufficient to show that some animals require very little, and in some cases not any, of what we usually denominate food, to support existence. Numerous instances might be cited where persons have survived for many days without nutriment. A woman condemned to death, in the reign of Richard III., lived forty days without food or drink. A young lady, sixteen years of age, is mentioned in the *Edinburgh Medical Essays* for 1720, who was thrown into such a violent tetanus, or rigidity of the muscles, by the death of her father, that she was unable to swallow for fifty-four days, and when she came into the natural state again, she declared that she had no sense of hunger or thirst. A still more extraordinary account than this is related of a man who, upon recovering from an in-

flammatory fever, had such a dislike to food of all kinds, that for eighteen years he never tasted anything but water. All will recollect the case of the sleeping man from Rochester, who was exhibited in this city last summer, and who had not partaken of food for a long time. Cats have been known to live over two years without drinking.—*N. Y. Sunday Times.*

THE NIGHTS.

BY BARRY CORNWALL.

O, the summer night
Has a smile of light,
And she sits on a sapphire throne;
Whilst the sweet winds load her
With garlands of odor,
From the bud to the rose o'erblown.

But the autumn night
Has a piercing sight,
And a step both strong and free;
And a voice for wonder,
Like the wrath of the thunder,
When he shouts to the stormy sea.

And the winter night
Is all cold and white,
And she singeth a song of pain,
Till the wild bee hummeth,
And warm spring cometh,
When she dies in a dream of rain.

O, the night, the night,
'Tis a lovely sight,
Whatever the clime or time,
For sorrow then soareth,
And the lover outpoureth
His soul in a star-bright rhyme.

It bringeth sleep
To the forests deep,
The forest-bird to its nest;
To care, bright hours,
And dreams of flowers,
And that balm to the weary—rest!

*Chambers' Journal.**For the New England Farmer.*

ARE LIGHTNING RODS HUMBUGS?

A writer in a late number of the *Farmer*, in answer to inquiries from a correspondent, describes the manner in which lightning rods should be constructed, and says, buildings protected by such rods are never injured by lightning. The following item appears in a late N. Y. paper:—"The house of Mr. Cushing, of Genesee, same county, was struck by lightning during a storm on Thursday, June 22. What is singular in the case is, the house was protected by three silver pointed lightning rods, of most approved construction, which rods it seems afforded no protection." The editor of the *Farmer* says other cases similar are known. The destruction of life and property by lightning, is becoming very frequent, of late. Storms are more frequent—houses and barns are burned, cattle destroyed, human beings instantly killed. As a defence and protection from the storm, many are putting up rods to their buildings which we are assured will certainly prevent injury by lightning. Are they humbugs? One says the rods should pass through glass rings; the *Country Gentleman* says that is all nonsense, wooden supports are just as good. Will not some scientific writer, who is thoroughly acquainted with the

whole subject, and is not concerned in the manufacture or sale of lightning rods, give us, the thousands of farmers and others, who are now turning their attention to this subject and who wish to know the truth, the whole truth, and nothing but the truth, in relation to it—the needed information. Thousands of rods are now being put up, and if they are indeed no protection from the fluid, it should be known. O, for light! Will not some one put his light in the *Farmer*, where it will shine upon its thousands of delighted readers.

S. G. B.

DEATH OF DISTINGUISHED AGRICULTURAL MEN.

The *Maine Farmer*, in speaking of the death of JOSIAH HOLBROOK, by drowning, says:—"He was the founder of the Lyceum system in New England. He was drowned in Black Water Creek, near Lynchburg, Va., on the 19th ult. It is supposed that he met his death by falling down a cliff in the creek, while searching for geological specimens. Mr. H. had written and published much on scientific subjects, and had achieved an extended reputation.

Thousands in the United States have reason to remember with gratitude his name, on account of his constant and unwearied efforts to simplify and render attractive the modes of teaching the young.

It was to him that common schools are indebted for the introduction of Apparatus and Blackboards, &c., &c., whereby many of the studies before obtruse and oftentimes incomprehensible to the young are rendered plain and even amusing to the child, and impress his mind so indelibly that he can never forget their teachings.

He was occasionally a correspondent of the *Maine Farmer*. His death is a public calamity."

The Rev. CHARLES FOX, of Groesse Isle, near Detroit, Mich., died of cholera on the 24th inst. He was English by birth, had for many years officiated worthily and acceptably as an Episcopal clergyman, but bought an islet in Detroit River and turned farmer some four years ago, and has since devoted himself to Agriculture and its improvement with enthusiasm and success. He established the *Farmer's Companion* some eighteen months ago, and last winter published the *American Text-Book of Agriculture*, which has been received with marked favor. Thus cut down in the very midst of a career of extensive usefulness, Michigan had few citizens whom she could so ill afford to spare as Charles Fox. It is not many days since we heard from him by letter in full health and activity: our next tidings of him came yesterday, and are here recorded.—*Tribune*.

A GOOD OLD SQUASH.—J. A. Ames, Esq., of Wilmington, sent one of the publishers this morning a *Custard Squash* of ample dimensions, fair,

and goodly to behold, and of the crop of 1853! There is no evidence of decay in its outward appearance, and like him who sends it, is undoubtedly sound at heart.

STATE AGRICULTURAL SHOWS IN 1854.

We find the following list of State Shows arranged in chronological order in the *American Agriculturist*.

Illinois, at Springfield, Sept. 12—15.
Kentucky, Lexington, Sept. 12—16.
Lower Canada, Quebec, Sept. 12—16.
Vermont, Brattleboro', Sept. 12—15.
Ohio, Newark, Sept. 16—22.
Michigan, Detroit, Sept. 26—29.
Pennsylvania, Philadelphia, Sept. 27—29.
Missouri, Booneville, Oct. 2—6.
New York, New York, Oct. 2—6.
New Hampshire, at Keene, Oct. 2—6.
Maryland, at Baltimore, Oct. 3—6.
Indiana, Madison, Oct. 4—7.
Wisconsin, Watertown, Oct. 4—7.
Connecticut, New Haven, Oct. 16—18.
North Carolina, Raleigh, Oct. 17—20.
Tennessee, (East,) Knoxville, Oct. 18—19.
Georgia, Augusta, Oct. 23—25.
Iowa, Fairfield, Oct. 25.
National Cattle Show, Springfield, Ohio, Oct. 26—27.

The following is the list for the different Agricultural Societies in Massachusetts:

Essex, at Lawrence, Sept. 27 and 28.
Middlesex, Concord, Oct. 3 and 4.
Middlesex South, Framingham, Sept. 27 and 28.
Worcester, Worcester, Sept. 27 and 28.
Worcester West, Sept. 20.
Worcester North, Sept. 13.
Hampshire, Franklin and Hampden, Northampton, Oct. 12.
Hampshire, Amherst, Oct. 18 and 19.
Hampden, Springfield, Sept. 27 and 28.
Franklin, Greenfield, Oct. 4 and 5.
Berkshire, Pittsfield, Oct. 4 and 5.
Housatonic, Great Barrington, Sept. 27 and 28.
Norfolk, Dedham, Sept. 26 and 27.
Bristol, Taunton, Sept. 27 and 28.
Plymouth, Bridgewater, Oct. 4 and 5.
Barnstable, Barnstable, Oct. 11.

NEW HAMPSHIRE FAIRS.

The several Agricultural Fairs in New Hampshire, the ensuing season, will be held as follows:

Rockingham County, at Exeter, Sept. 13 and 14.
Grafton, at Lyme, Sept. 21 and 22.
Cheshire, at Keene, Sept. 26 and 27.
Merrimack, at Fisherville, Sept. 27 and 28.
Hillsboro', at Nashua, Sept. 28 and 29.
Sullivan, not determined.
State, at Keene, October 3 and 6.

CHARITY.—Every good act, says Mahomet, is charity. Your smiling in your brother's face is charity; an exhortation of your fellow-men to virtuous deeds is equal to alms-giving; your putting a wanderer in the right road is charity; your removing stones, and other obstructions from the road is charity; your giving water to the thirsty is charity. A man's true wealth hereafter is the good he does in this world to his fellow-men. When he dies, people will say, "what property has he left behind him?" But the angels who examine him in the grave will ask, "what good deeds hast thou sent before thee?"

For the New England Farmer.

INSECTS DESTRUCTIVE TO PEACHES.

MR. EDITOR:—Dear Sir,—I send you by my brother a specimen of an insect which last year proved very destructive to my peaches, attacking them on the first softening spot, two or three days before the peach would otherwise ripen. They would eat large holes in the peaches, and if they were not gathered in time to prevent, the insect would leave nothing of the fruit attached but the skin and stone. I have frequently found a dozen or more on one peach, eating in the same orifice; if disturbed they would drop to the ground, and in their fall a few would fly away. You will perceive that it is a beetle, about the size of the little finger-nail, and woolly on the sides and belly. I have read of the *woolly aphid* on apple trees, but do not remember any description of it. Can you inform me of the name of the animal? It made sad havoc with my early peaches last year, but by killing what I could, and feeding the rest with sweetened water in wide-mouthed vials, I saved the majority of my later peaches, but not unscathed or untouched, as nearly all were bored or punctured by them.

This specimen is the first I have seen this season, and was at work upon a late apricot; my earlier apricots ripen in the middle of July, budded from an old seedling on my grounds, planted more than fifty years ago, by an old lady now living.

Our peaches in many places in this town are becoming red a month before their time, while the leaves scarcely show any change, except perhaps, not so clear and deep a green as usual. Does this forebode the yellows? And should we dig them up this fall, or wait another season for a clearer declaration of the disease?

ABORTION IN COWS.

In the August *Farmer* of 1853, p. 356, complaints are made of abortion in cows.

High feeding has a direct tendency to produce this; if a cow has done so once, meal should be kept from her for a month or two before the anticipated period of abortion, or during the greater portion of the period of gestation. Many a female of the human species has only avoided the same "mishap," by strict attention to diet.

Too high feeding, with no hard work, often produces an irritability not only of the nervous, but of the circulating system in its minutest subdivisions as spread over secreting surfaces. There is a greater tendency to this in the female system than in the male. The mare fed on oats and but little used will often become excessively snappish, or intensely cross. Withdraw her oats and she loses this irritability; or give her hard work and the effect will be the same. If in the cow this irritability of the secreting surfaces, induced by continued high feeding, is fed and fanned by meal and grain, a tendency to inflammation is produced in the uterus, which during gestation is the most irritable point in the system. Nature has no other way to relieve herself of this danger to the life of the mother, when the meal and grain continue to flow in, than to prevent inflammation of the womb and death, by evacuating the contents of the uterus. The increasing irritability of that organ, excites its repeated contractions, as at the full period, and abortion results and the mother

is saved at the expense of the young. If the young is carried to maturity, it survives, and the mother dies of inflammation of the womb.

There are other causes of abortion. But this is one quite likely to produce it—too high feeding during the process of gestation; and by too high, I mean not too much in quantity, but too stimulating in kind, to the circulation.

Yours respectfully,

LEWIS S. HOPKINS, M. D.

Northampton, Aug. 15, 1854.

For the New England Farmer.

PEACH FAILURE.

MESSES EDITORS:—The scarcity of peaches the present year has been supposed by some of us to be the result of the excessive cold weather between the 24th and 27th of March, or about the 7th of May, last; but the strongest evidence that the fatal cause was previous to that period is, that among a considerable number of our trees, not counted, only three have peaches upon them; those trees were located to the southeast of a range of hills extending from northeast to southwest, and the lower branches were covered by the drifting snow in the disastrous storm of Dec. 29, 1853, and remained covered through the excessive cold in January following; now those covered limbs are loaded with peaches, while there is not another to be seen upon a tree on all the rest of the premises, in any situation, and I believe not in the neighborhood. The above facts suggest an idea that may be useful to peach growers, viz.; if some kind of covering could be put on to those trees which produce the best fruit, that would protect them from the severe winter blasts, we might have a family supply, if not more, every year; as the peach is a prolific bearer naturally, and resists the inclemencies of an inhospitable clime to the last extremity of its tender nature, never yielding to the northern frosts and cold so long as its soft Persian vitality holds out. It may be understood that those drifts which covered the peach limbs were thawed away previous to the cold weather in March and May.

S. BROWN.

Wilmington, Aug. 4, 1854.

For the New England Farmer.

MONTHLY FARMER FOR AUGUST.

I have been so unusually busy during the past month, that I have read only a portion of the *Farmer* for August. Yet I have read enough to find that the drought which is now blasting the fields and shrivelling the corn has not dried up the vigor or parched the spirit of the *Farmer*; and it is refreshing to turn a moment from the plodding and disheartening Practical, to the more buoyant and hopeful Theoretical,—from the heavens that are "brass" to the promise of the "latter rain."

Not possessing the ability which enables modern critics of "New Publications," to express opinions of productions they have not read, I must acknowledge that I have read some three or four articles in the August *Farmer* on the subject of cutting hay and grain early, that, it seems to me, from a careful examination of much of the hay I have seen housed this year, are entitled to at least a careful consideration; and that many of

us would do well to lay aside this number for repusal next June, even if we have to purchase it expressly for that purpose at the cost of a year's subscription.

In the reply of Mr. French to the inquiry of "J. D." as to "What kind of Farming" he would recommend, one little paragraph particularly arrested my attention, viz. "*I think we New Englanders are more extravagant in our dwellings and carriages and furniture, than any other people on earth.*" How much of the cream of our soil, in the shape of grain and cattle, leave us forever to pay for these "extravagances!" The present time too it seems to me is particularly fitting for the introduction of such thoughts. For several years farmers have enjoyed great prosperity—prices high and money plenty—and the inducements to indulgence in these things proportionally increased. Such "good times" often prove a "snare to the feet" of young farmers. Look out, boys, for a change of times, and for debts it will be hard to pay.

I should like to notice some of the many other good things in this number, which I have read, but I am too late in the day. I cannot, however, pass over the "Successful Farming" by Mr. Gay, of New Hampshire, without saying that no kind of agricultural articles gives me more pleasure than such accounts. It would be well, I think, that the rigid economy which must lie at the foundation of such success, should be made more prominent, in these days of thoughtless improvidence.

A READER.

Winchester, Aug., 1854.

For the New England Farmer.

ICE HOUSES.

MESSES. EDITORS:—In last week's *Farmer* I noticed an article from LYSANDER B. HUNT, in which he states, that, having been at much expense in building an ice house, he finds it impossible to keep ice in it later than the 20th of July. I cannot conceive why a house built as he describes his to be, should fail, with proper care, of keeping ice the year round. It may be the case, and I think very likely is with his, that he endeavored to make it air tight, or as nearly so as possible. Now this should not be so, for it is a fact, that ice *cannot* be kept in a building nearly tight, without melting, half as long as it can where a moderate quantity of air is admitted, although care should be taken not to allow too much.

There are many ways, and for aught I know, equally good ways, for keeping ice. But allow me, Mr. Editor, to present for the consideration of your numerous readers, the plan of a building got up and built by myself and brother three years since, which I know, and will warrant, from experience, to keep ice the year round, and in point of cheapness and convenience I think cannot be beat,—as three thousand feet of lumber, twenty-five pounds of nails, and four or five days' work, amounting in all, to not more than twenty-five dollars, will build an ice house large enough for one family numbering less than twenty. I think much depends upon the situation of an ice house, and should consider it very desirable, if possible, to build it within an other house, for many reasons, which I will not tire your patience by giving, but at once give you a description of the one built

by us, hoping, if it shall meet the approval of any of your readers, and they should think best to build like, or similar, to hear from them in the future through the columns of your valuable paper.

In the first place, dig out the dirt where you wish your house to stand, to the depth of two feet, or more, if exposed to frost greatly, and fill up with stone, then put your sills on level with the ground, put in strong sleepers, and cover this over with three inch plank. Commence upon these plank with scantling, sawed one and a half, by four inches for your wall, laying one upon the other and nailing them one to the other, inside of this lay up another tier, leaving a space of about four inches to be filled up with sawdust, or tan-bark; so continue till you have it as high as you wish for ice; then take plank and cover over, having them come to the outer edge of your inside wall; continue on as before with your walls, until as high as you like, and cover all over with plank two inches double; if under cover no roof will be necessary more than this. Have two doors, one where the ice is, and one above where you can put in butter, milk or anything you like to have kept cool. Bore these upper plank full of two inch holes, the ones above the ice; and the ones at the bottom of the house bore half inch holes through them once in about a foot all over the bottom, and spread two inches, or more of sawdust or tan-bark over the bottom before putting your ice in. Pack the ice as closely as possible, not having it come quite up to the top and edge of your house, and when full throw sawdust, or whatever you may use over the top, and also fill up between the ice and sides of the house, and I will venture to say you will not be out of ice by reason of melting by July 20th.

JOSEPH BLAKE.

Ashfield, August 17.

HAVING A TRADE.

By all means have a trade. Do not go up and down in the world, and find nothing you can put your hand to. You may not always be as prosperous as you are now. Thank heaven we live in no land of primogeniture, hereditary succession. Each man is morally bound by labor. Have something you can turn your energies to when times pinch—have a trade, we repeat. Educate your hands; it will be an everlasting resource. We never knew a man, who, with a good trade, failed of getting a good living, and much more with right application. What though you are going to college, or into a profession! The case is not altered—you need it just as much. It will come in play every day in your life. Discipline of the hand should always go before that of the head. We never knew a college boy that wasn't better for a substantial trade. He always graduates with the highest honors. He is sure to be a scholar. The fact is, he knows how to work—to conquer. He but transfers himself from the shop to the study. Young man, decide at once to learn a trade, apply yourself with all your mind and heart, and be its master, and if you are not obliged to work at it, you have laid by so much, and such a kind of wealth can never be taken from you.

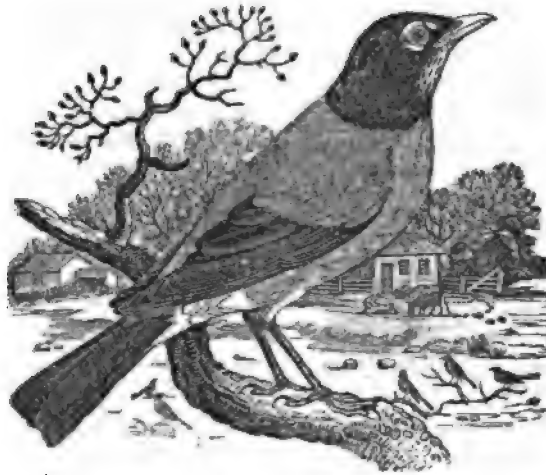
☞ This year is said by the oldest inhabitant to be the driest since the year 1826.

THE ROBIN.

The Robin is a well known bird and familiar to almost everybody. Innumerable thousands of them are seen in the lower parts of the whole Atlantic states, from New Hampshire to Carolina. They migrate, to avoid the deep snows, from north to south, and from west to east. The robin builds a large nest on an apple tree, plasters it with mud, and lines it with fine grass. When berries fail, they disperse themselves over the fields, and along the fences, in search of worms and other insects.

The robin is one of our earliest songsters; even in March, while snow yet dapples the fields, some few will mount a post or stake of the fence, and make short and frequent attempts at a song. His

notes in spring, are universally known, and as universally beloved. They are, as it were, the prelude to the grand general concert that is about to burst upon us, from woods, fields and thickets, whitened with blossoms, and breathing fragrance. By the usual association of ideas, we therefore listen with more pleasure to these cheerful birds, than to many others of far superior powers, and much greater variety. Even his nest is held more sacred among schoolboys than that of some others; and while they will exult in plundering a jay's or cat-bird's, a general sentiment of respect prevails on the discovery of a robin's. He possesses much suavity of manners; and always seeks shelter for his young in summer, and subsistence for himself



in the extremes of winter near the habitations of man.

The robin goes by several names; some people calling him the red-bird; some the black-bird; and others the American field-fare. They inhabit the whole of North America, from Hudson's Bay to Nootka Sound and as far south as Georgia. They are too well known to require further description.—*Library of Natural History.*

For the New England Farmer.

PROFESSOR MAPES ON THE CULTURE OF CARROTS.

MR. EDITOR:—Being on a visit to a friend, a few days since, I was shown a copy of the *Gardener's Magazine* for June, 1854. In hastily running my eye over the various articles, my attention was attracted to some remarks on the cultivation of carrots, written by Professor J. J. Mapes. As I am specially interested in the culture of that root, I was glad of an opportunity to know what so distinguished a writer on agriculture had to suggest, that was new. And truly, there were some ideas that struck me as quite new, and very remarkable, not to say absurd. For instance, he recommends that "Those who plant carrot and other slowly germinating seed early, should make use of assistant seeds to break the soil. Mix with the carrot long scarlet radish seed. It will come up in forty hours. The leaves of the radishes will shade the carrots, and prevent the sun from baking

them; the radishes will mark the rows, and prevent very much, the growth of weeds. The long top roots of the radishes will bring up moisture, and thus assist in protecting the carrots."

Now at the risk of being thought deficient in reverence for scientific theorists, I am compelled to believe this to be arrant nonsense. No one is more willing than myself to receive instruction from any one, learned or ignorant. But I cannot receive as truth everything which is put forth by those who have the reputation of learning. Give me, in my instructor, with the largest possible amount of learning, a habit of close, careful observation of facts, and I will bow with what reverence is in me to the teachings he may bestow. But if such instruction as the above comes from the learned Professors of the science of agriculture, who can wonder at the contempt in which "Book Farming" is held by the followers of the common sense experience of their fathers? I have had some little experience in the raising of carrots; and though I have no reason to suppose my seed unusually strong, they have shown themselves fully competent to "break the soil" alone, whether sown early or late, if they were supplied with sufficient moisture. I think the Professor must have a peculiar breed of radishes; and if they can be warranted to draw up more water than they want for their own selfish purposes, and generously bestow the surplus on the carrots; if they have the disposition and the power to make their shade benefit the carrots, and at the same time hinder

the growth of noxious weeds, then he may claim to have found the connecting link between the vegetable and animal kingdoms, nay, a link that connects the vegetable kingdom with rational Christian man. And he would do the world great service by distributing seeds of the wonderful plant.

In another part of the same article, the Professor says:—"Half an inch seems to be the greatest depth at which the carrot can be planted with certain success as to germinating." Some few years ago, (my agricultural experience has not been a long one) I was in the habit of sowing the seeds at a depth of about half an inch, as the Professor recommends. Passing through a neighbor's garden one day when he was sowing his seed, I noticed that he had made trenches not less than two inches deep, and put his seeds at the bottom. As I had furnished the seed, and felt interested in its reputation, I took the liberty to suggest that it was rather deep planting; but he covered them the full depth; and the result was, that his came up better than mine. Since then, I have not been afraid to deposit my seeds of all sorts at a depth that would insure sufficient moisture, and I verily believe, that more seeds fail from too shallow than from too deep planting. Especially in dry seasons there is danger that the shallow planted seeds will be kept too dry, to permit their germination.

MINOT PRATT.

Concord, Mass., July 24, 1854.

WHEAT-GROWING IN MASSACHUSETTS.

In our calendar for August, last week, we incidentally mentioned the cultivation of wheat by our farmers, and we now continue the subject more in detail.

Some twenty-five years ago, it was well known that wheat could not be raised in Massachusetts, except in a few favored spots on Connecticut river. The reason was the land was too old; that wheat could only be raised profitably on new lands. Yet wheat has always been raised in the "old countries," in England, in Italy, in Germany, in Russia, in as broad a range of latitude as our whole country, from New Orleans to Pembina in 49°.

But since the establishment of Agricultural Societies and the increased circulation of farming newspapers, in consequence of which it is no longer held as treason, or even as a high misdemeanor, to suggest new hints or express new ideas upon the business of farming, it has been really suggested that wheat might be raised on our soil, and the experiment, bold as it may seem, has been tried. The result of the experiment is, we believe, that wheat, though not considered so certain or so profitable a crop as corn, may, notwithstanding, be raised to advantage in the State.

We believe it is a fact, and rather a singular one, of which we shall presently suggest the cause, that in no part of our extended country, with all its variation of climate and diversity of

soil, have so good crops of wheat been raised as England. From Maine west to Iowa, and from Virginia north to Michigan, we think there has been no tract of country that has produced on the average as much wheat in quantity, as in some of the wheat counties in England, Kent for instance. In Mr. Colman's book on European Agriculture, though he says that in some statistical works 26 bushels have been put down as the average, and though there are persons who insist that it should be put lower, yet he could never find the farmer who would allow his own yield to be at the low rate. He says that under good cultivation he has rarely known it less than 32 bushels. He has found it 40,—and is informed on the very best authority that the yield is often from 56 to 64. Indeed, he reports instances greatly exceeding that, where it appeared that 37 and 40 bushels were severally raised by Mr. Barclay, M. P., and a Kentish farm laborer represented that about 35 or 40 bushels are raised there, as an average crop. We believe our best wheat crops have been in Michigan, and in some parts of Wisconsin, Iowa, and Northern Illinois. But the average in the best of these would not come up to the Kent county standard as we have stated it. In Virginia, it is greatly below it.

As we have such a variety of climate in the wheat-growing districts, our short-comings must be attributed to one of two causes, soil or seed. There are two principal requisites in soil, for wheat. According to the opinion of most farmers, the soil should be rather a stiff, tenacious, clayey soil, and not mellow, light, or loose. We think it should not be too rich also. In a mellow, light, and rich soil, it makes straw at the expense of the grain. But the main requisite in the soil for aliment of the plant, is phosphate of lime. To this condition or to the seed, or to both, the greater success in England, in wheat-growing, is to be attributed. England is a limestone country, and the farmers use bone manure, which furnishes the phosphate of lime, on their fields.—The most of the western wheat-growing lands are in a limestone country, but the soil is too light and mellow, favoring straw too much. So much for the soil. Now every farmer knows that there is a great difference in the measure of different kinds of wheat grown on a given number of stalks. In some kinds the kernel or berry is larger and heavier, and in some kinds, there are a greater number of kernels to an ear, than in other varieties. Let the best kind be selected, that which is of the best quality, and bearing the largest ears, the Kent county wheat, if it may be procured, or some other productive variety, and let it be sown in sufficient quantity, (our farmers do not seed so heavy as the English, our rule being 1½ to 1¾ bus. to the acre, the English 2 to 2½) on

a tenacious, stiff, soil, not too rich, only in good heart,—supplying to the ground those articles which make the constituents of the plant, and if fall sowing, on a northern declivity, early in September; and we cannot but think the product will be materially increased.

As to seed, the Siberian wheat is much improved in some of the wheat farms in Iowa. Others use what they call the Ohio white, a bald wheat with white husk. In other parts, the variety known as Club wheat, having the kernel set horizontally on short ears, is preferred, for the reason that it is there considered not liable to the rust, which has greatly shortened the crops of other varieties. The Winter Blue Stem is also raised with success, even on quite light lands, inclining to sand.

Mr. Colman names several varieties raised in England, and their product in certain fields, as follows:—

Essex Brown, rate 40 bushels.....	64 lbs. per bushel.
Surrey White, rate 36 bushels.....	64 " "
Brown, (called clover), rate 40 bushels.....	63½ " "
Snow drop, White, rate 39 bushels.....	63 " "
Burwell Brown, rate 45 bushels.....	63 " "
Whittington White, rate 38 bushels.....	62 " "

W. Miles, Esq., raised 48 bus., 42 bus., 2 pecks, 47 bus., 35 bus., 3 pecks, and 49 bu.

P. Pusey, 37½, 45½, 47½ bushels. Samples of the whole field. W. L. Kidd, M. D., of Armagh, Ireland, obtained at the rate of 50 bus. of 62 lbs. per acre, and there were larger crops in his neighborhood. The wheat was red wheat. Quality such as to command the highest price. The soil was a stiff clay recumbent on limestone.

Mr. Colman mentions other products in other counties coming up to these rates. In Gloucestershire, the product on several acres was from 46 to 49 bus. weight from 59 to 62½ lbs. In Worcestershire, in a field of 130 acres, the crop was nearly 47 bushels per acre.

In the Western States much of the wheat is under 60 lbs. It is considered the best weight at 60 lbs., and few crops go above that. We think no wheat has ever been grown in this country at 64 lbs.

The white wheats yield the greatest proportion of flour, the flint wheats the greatest proportion of gluten, which is the most nutritious part of wheat. The white is preferred for making the superfine flour and white extra-fine bread, though the bread is less nutritious than that containing more gluten. The southern wheat generally contains the most gluten, though the proportion of this element is much affected by the kind of fertilizers used. No crude animal manure should be applied directly to the wheat, but to the previous crop. If the land is mellow, the wheat should be rolled.

☞ The swamps of Provincetown are about to turned to good account as cranberry beds.

For the New England Farmer.

MANAGEMENT OF THE HORSE.

BY G. H. DADD, M. D., VETERINARY SURGEON.

MESSENGERS. EDITORS:—I notice in a recent number of your journal some very sensible remarks on "A Horse's Foot," in which the writer has introduced sufficient evidence—the result of his own experience—to prove the injurious effects resulting from allowing horses to stand on *soft beds*, impregnated with ammonia, &c.; and real glad am I to know that there is a disposition on the part of *horse-owners* to expose and correct, evils of this description. It is my firm belief—based on a knowledge of the physiology of the *foot*,—that soft bedding, containing the usual amount of filth, is in many cases the exciting cause, not only of *tenderness* and *contraction*, but from whence arises many muscular affections. I rejoice to find horse-owners exercising their *reason* in this department of stable management, because it is one step in the right direction, and will put a stop to those glaring absurdities which are constantly practised, just because they have the sanction of antiquity; or because neighbor *so-and-so*, recommends them. Reason teaches, that the health of the whole animal fabric is best promoted by cleanliness and ventilation (by which a pure atmosphere is insured,) and by food suitable in quantity and quality to the special wants of the animal.—Hence, what reason teaches, man should practice.

It is unreasonable, therefore, to suppose that a horse can be benefited by standing on a *soft bed*, composed in part of the defiling excrements of his own body, which are constantly decomposing and forming gaseous vapors unfit for respiration. If dirt and filth are innocuous, in what does the value of our sanitary regulations consist? Why do our city authorities spend so much money to purify the pestiferous cesspool and sewer, and to rid our streets of accumulating rubbish and filth? Let our citizens wallow knee deep in muck and revel shoulder deep in an atmosphere saturated with ammoniacal and carbonic acid gases—as *some horses are compelled to*—and death would run riot; our city would be converted into an immense charnel-house; a fit receptacle for a race of beings that would not adopt the means which reason and experience suggest for averting the calamity.

Horses that have no better care than that alluded to, are in close proximity with disease: that they are often found dead in their stalls from the effects of carbonized blood, I can testify, and many more would die, only, they are permitted to take a little of the breath of life, during the day; which, to some extent dilutes the poisonous gases with which their system has been saturated during the night, and thus, their life,—which under the best circumstances is a weary toil, is prolonged.

Without attempting to prove the general effects of impure air, and filth on the system of a horse located in a stall from *one to two and a half feet* deep (as your correspondent has it) of soft bedding; let us consider, in a brief manner, the local phenomena. Your readers are all aware that the combined action of heat and moisture tends to relax—ennervates the tissues of the body, and if carried beyond a certain point, ends in decomposition.

Take, for example, a common poultice, apply it to a horse's foot, and renew it as soon as it becomes dry; in the course of two or three days, the hoof will separate from its matrix, the frog and heels soften, the tissues are in a state of relaxation, and if the poultice was continued, the hoof would separate from the sensible parts; if the foot is already diseased, the separation is accelerated. Warm water has the same effect; applied externally for any length of time, it relaxes and prostrates; applied internally, it relaxes and vomits. Hence the *soft*, which implies, *moist*, *hot* bedding,—tends to create morbid action in the feet, and whatever disease the horse may be predisposed to in those parts, will generally manifest itself. Some animals, however, escape the evils alluded to, owing to their insusceptibility; for disease of the foot cannot occur without a susceptibility to it, and the application of a cause. Soft bedding, cow dung, and other unmentionable filth, are often resorted to as remedies for contraction, but they are classed among the irrational barbarities of the past, with which they ought to have sunk into oblivion.

Veterinary science has discovered that if such articles possess any virtue, it is owing to the moisture they impart to the foot. Therefore, on the score of decency, and in view of relaxing the contracted foot according to the principles of reason, and modern science, we should avoid every kind of filth, and resort to pure water or wholesome poultice. Or, take off the shoes, wash the feet daily, and let the horse run to grass; so that he may bring the sole and frog in contact with the ground, and thus promote expansion of the heels. I endorse your correspondent's views as regards the *manufacture of tender feet* in both the young and aged, and it makes but little difference, whether they have the range of a filthy barn-yard, or are confined in a bedded stall; the effect is, tenderness of foot, and subsequent lameness; and the same, or a disposition to it, may be transmitted, through the sexual congress to future offspring.

In view, therefore, of preventing diseased feet, strict attention must be paid to cleanliness; the stall floor should be composed of brick or plank having just sufficient declivity to conduct fluids into a gutter, running along the entrance to the stall, which should terminate exterior to the stable, so that the ammonia, in which the urine is abundant, is carried beyond the stable atmosphere. The bedding, which according to long custom is stowed under the crib, there acting as a sort of noxious smelling bottle to the horse's nostrils,—should be spread out in the open air, sorted; the refuse and excrement removed to a dung heap located as far from the stable as possible; for the common manure receptacle, under the stable floor, is one of the worst features of stable economy. The stable floor should be washed clean, as often as circumstances permit.

FREAK OF NATURE.—A friend gives us an account of a singular freak of nature which he has observed in his garden this summer. Some time ago, a sprout came up from the root of a rose-bush, and some two or three weeks since, when it had attained the height of 12 or 14 inches, a bud appeared directly on the top of the shoot,—

Just as the bud began to open, the shoot pushed right up through its centre, and grew, while the flower was maturing two or three inches more.—A few days ago, he noticed that there were four buds on the bush, through the principal one of which the sprout is again making its way. The leaves of the former flower, though wilted, not having fallen off, he has thus a rose-bush which presents the singular sight of two flowers *strung on the stem*.

For the New England Farmer.

CHAPTER ON HUSBANDRY—No. 2.

MR. EDITOR:—Dear Sir—You kindly published my first chapter and pronounced it excellent advice; I take the liberty to go on, promising no harm or bad advice. The 9th closes my last—I begin with

10th. Keep a good depth of soil in the barn-yard; night air out of doors must be better for cows than the confined air of the leanto. Before turning out, start them around the yard, and all the droppings can be buried with a shovel in a few minutes, which keeps the yard clean, and saves the manure from drying waste.

11th. The sink-drain, washing suds and privy arrangements, can be so combined by drains to a common receptacle, as to warrant the manufacture of twenty-five loads of manure per annum; the value of these lost substances is hardly appreciated.

12th. Sand your leantos; it keeps the cattle clean, particularly the milch cows.

13th. Bed down your horses at night, and give them a *clean, hard floor* by day; this prepares their feet for hard roads.

14th. The mother of pigs is an eccentric animal; prior to her accouchment, she requires the kindest treatment—such as a little fashionable "*shampooing*" with the curry-comb or card, and other like tender caresses, which may keep her from crunching her young; but with all of their "*mire and dirt*" swinishness, they want a softer bed than a Chinaman for a night's lodging.

15th. *Gates* around your premises are more convenient than *bars*; yet many a rich farmer waits the slow operation of "*taking down the bars*," rather than reduce his *cash capital* in making a convenient gate. A good gate, well painted, hung on stone posts, is economy in the end.

16th. Char to a coal your posts, (cedar excepted, am unacquainted with this wood;) it would pay well, even with your hard wood stakes for fencing stuff.

17th. Place your season's fire-wood immediately under cover; the "*grand wood hill*" so ornamental to the farm-house, and so commendable to its owner, he may rest assured, that 15 or 20 per cent. of its value is saved by *seasoning* it under cover as soon as split.

18th. Use *glass* for glazing the broken panes; old trowsers, a bag of straw, sometimes a wide shingle—look, "*The store has got some 7 by 9.*" But New England is getting *too proud* for these kinds of shows.

19th. Do not be afraid to cut off this or that twig in branching the limbs of your young orchard. The remaining wood gets all the sap, ex-

tra growth, and you are getting a fine-formed tree.

20th. Never prune when the limbs get so large as not to heal; *rot* begins where the limb is taken off, water runs and insects shelter there; the life of the tree depends upon a *sound exterior* from top to roots.

Mr. Editor, lest I should become tedious, I will end my chapter, promising my farming friends a few more verses, (with your permission) not inapplicable to their profession. Yours truly.

Brooklyn, N. Y., July 26, 1854. H. P.

For the New England Farmer.

LIGHTNING RODS.

MR. FARMER:—One of your correspondents inquires about lightning conductors. I don't profess much knowledge upon the subject; but my writing may call forth the wisdom of others.

In the first place, I must beg leave to differ from you, Mr. Editor, in the admission, that buildings may have been injured by lightning, when rods were properly attached. (a.) I don't believe any such thing. The electric fluid is governed by laws as fixed and invariable as those which obtain in gravitation. You may say that we are ignorant of these laws. I admit that we know comparatively little of electricity, the variations of the needle the aurora light, the connexion of electricity with light and heat, its agency in the growth of vegetables and animals—and its agency in the operations of mind. These we firmly believe to exist; but, of their *modus operandi*, we are left still to conjecture.

It by no means follows that because we know not everything, we can know nothing with certainty. Certain phenomena have been so often observed to accompany certain conditions, as to warrant the inference that the electric fluid is governed by fixed laws.

Now to deny the security of lightning rods;—Mr. Editor, I wonder you did not receive some such spiritual manifestations as he who brought the lightning from the skies, did, when he experimented with the kite,—got smartly rapped over the knuckles.

That buildings have been injured, to which conductors have been attached, and that frequently, can't be denied. Steamboilers sometimes burst, though the capacity of iron, and the power of steam are known with certainty. But the more familiar people become with steam, the fewer, comparatively, are the accidents. So with electricity; these disasters result from want of knowledge, or carelessness.

It will be found in all cases, I think, unless the striking of Arndor Douglas' house was an exception, for I believe that He who established the laws of nature can suspend them, that the injuries sustained are in consequence of some defect in the material, position, length, or mode of attachment of the conductor.

The First Baptist Church in Worcester was struck with lightning, some years ago, while the Sabbath school was in session, and several of the children were seriously injured. There was a conductor put up, as was supposed, in the most approved manner. The doubting were made skeptics. Lightning-rod stock became a drug in the market; multitudes lost their confidence in Ben

Franklin; but some one more curious than the multitude made search for the cause of the disaster. It was easily explained, and the character of the philosopher vindicated. The house stands upon a solid rock; the conductor was properly attached, but terminated in solid, dry rock! A hole had been drilled some five feet into this rock, into which the rod descended, and there terminated. In a dry season, the rod was as completely isolated, as if it had terminated in a globe of glass. The fluid was taken from the clouds by the point, conducted along the rods, till finding no natural way of escape, it leaped through the walls of the building, upon the stove-pipe in the basement, along which it ran, to the no small annoyance of the children then assembled, and escaped by various conductors to the earth.

Now I believe that in all cases of failures to protect, it will be found, upon examination, that the defect was not in the laws of electricity, but that they were not observed.

Let me suggest a few things to be observed.

1st. *The conductor must extend to water.* Ordinarily, the earth near the surface, is sufficiently moist; but in a dry time, the very time to look out for thunder storms, the surface, and especially near the walls of a building becomes so dry as to be a perfect non-conductor. In such a case the conductor only serves to invite the fluid from the clouds to the destruction of the building. That portion of the rod which enters the earth, should be copper, or some composition not easily oxidised. Oxide of iron is but an imperfect conductor.

2d. The attachments should all be carefully cased with glass, or some other non-conductor. Let the conductor, in its descent, pass through half-a-dozen iron bolts, which entirely surround it, and it would be passing strange if much of the fluid should reach the ground.

3d. Let the rod ascend to sufficient height above the highest point of the building.

I will not enter upon a discussion of the comparative merits of the two methods—the Franklinian with one rod, or the modern with many. Suffice it to say, I should feel safe with one rod put up "according to the directions." And I have yet to see any proof, that a building which is bristled all over with silver-topped points, is any nearer "thunder proof," than the former.

The height of the point above the ridge, should be half the distance from the base to the remotest part of the ridge. On a barn of 40 feet, the rod rising in the centre, should ascend 10 feet. From a ridge of 80 feet the point must be elevated 20 feet.

On large buildings it is well to have two or more points connected with a common conductor. If there is a chimney rising above the ridge, unless the rod runs up beside it, its height must be taken into account, in fixing the elevation of the point.

So firmly do I believe in the efficacy of these rods, when rightly adjusted, that I wonder any should suffer a house or barn or any building containing valuables to remain long without one.

We live in an age of insurance and assurance companies. I know of no company, whose policy will guarantee so much protection for so small a premium.

Personalities.—In a thunder gust avoid a standing posture,—the chimney, the window, the

doorplace. If sitting, be so impolite as to keep your feet off the floor—but not on the top of the stove or on the mantel.

There is safety on a bed of feathers, of husks, of hair or straw; on a haymow, or on a pile of shavings if dry. If anxious to try an electrical experiment, stay out in the rain till your clothes are wet, then lean up against the body of a tree, in an open field—the taller the tree the better, or stand in the outer door-way with your hands raised to the lintel. R. B. H.

Springvale, Me., July, 1854.

REMARKS.—(a.) We are not aware that we have made such an "admission." We certainly agree in the general principles laid down by our correspondent, and should be sorry to lessen the confidence of our readers in the utility of lighting rods, *when properly put up.*

ANALYSIS OF SOILS.

Mr. S. W. Johnson, who is now engaged in chemical investigations under Liebig at Munich, has an able and elaborate article on this subject in the *Country Gentleman*, in which he sums up as follows:

I do not doubt that in very many cases a careful investigation of a soil—chemical, physical and historical—by a genuine and scientific farmer—one, familiar at once with science and practice—would afford safe and nearly accurate data for its proper treatment. But this would be always expensive, and in nine cases out of ten, would not pay. *Soil analysis, at the best, is a chance game; and where one wins, a hundred may lose.* It is the royal road to what, the farmer should reach by study, and a profound understanding of natural laws. By this is meant that it is no practicable road, not one which should be often trodden by the man of moderate means; although it may be entered upon by the wealthy and curious, who have no need to work in order to eat. A soil-analysis is always interesting, often valuable, rarely economical. It may amuse the amateur, and instruct the philosopher, but for the farmer its value is small, if he has to pay for it. It is only by the application of the general principles which may be developed from numerous analyses, that he can hope to be directly benefited.

But what shall the farmer do? Shall he grope in the dark? No! But let him beware of false lights which are now a-days hanging out in abundance. Let him beware of taking advice from two dangerous characters;—the conceited farmer who knows a little science, and the officious philosopher who knows a little farming.

It is far more difficult to warn against a course that is unsafe, than to point out one that will lead to desirable ends. Practice must accomplish many of her ends in her own ways for a long time to come. She should thank science for rebuking her errors, and should reject them as they become manifest. She should accept the light that science sheds upon her path, though the rays be those of a taper. Science should carry herself modestly, as befits her youth, and not talk too loudly on all occasions of old-fogyism *vs.* progress. She should remember her failings. The sister of 60 centuries, and she of tender years, should join hands, and

walk harmoniously together towards the fields of promise that lie in the fruitful coming time.

ELEGANT BALLAD.

'Twas on a cliff, whose rocky base
Baffled the briny wave;
Whose coloured height, their verdant store
To many a tenant gave.

A mother, led by rustic cares,
Had wandered with her child;
Unweaned the babe—yet on the grass
He frolicked and he smiled.

With what delight the mother glowed
To mark the infant's joy;
How oft would pause amid her toil
To contemplate her boy.

Yet soon by other cares estranged,
Her thoughts the child forsook;
Careless he wandered on the ground,
Nor caught his mother's look.

Cropped was each flower, that met his eye,
Till scrambling o'er the green,
He gained the cliff's unsheltered edge,
And pleased, surveyed the scene.

'Twas now the mother, from her toil,
Turned to behold her child:—
The urchin gone!—her cheeks were flushed
Her wandering eye was wild.

She saw him on the cliff's rude brink—
Now careless peeping o'er—
He turned, and to his mother smiled
Then sported as before.

Sunk was her voice—'twas vain to fly—
'Twas vain the brink to brave—
O Nature! it was thine alo
To prompt the means to save.

She tore her kerchief from her breast,
And laid her bosom bare;
He saw, delighted—left the brink,
And sought to banquet there.

For the New England Farmer.

HOW TO USE MEADOW MUCK.

MR. EDITOR:—In the July number of the *Farmer*, under the head of "Meadow Muck and Lime," and over the signature of "Young Farmer," I find an important inquiry,—*"How can I use an inexhaustible bed of decayed vegetation to best advantage? Can I make a compost by mixing lime with it, that will produce corn, rye and other crops?"*

As I am under obligation to my brethren of the "farmer family," I should be guilty of a culpable neglect of duty, if I should not take an early opportunity to give my experience and judgment on the subject, and so you have it for what it is worth.

Put so much muck in the barn-yard, hog-pen and other proper places as will absorb the juices and then, instead of drawing 50 loads to a compost heap and adding thereto lime, ashes, or other materials, and expending much hard labor in mixing, reloading and spreading, draw in the autumn or winter months, 100 or more loads to the acre, spread it upon the land evenly as you draw it, that it may have the action of the frosts to pulverize it—then plow and plant first to potatoes—use plenty of ashes on the potatoes to prevent the rot, a handful on each hill where they first

come up and the same again after hoeing. The land will thus receive a permanent benefit. The soil, if sandy and loose, will better retain after applications from the barn-yard, and will produce wheat, corn, oats, or any crop suited to the climate.

I have four plantations of cranberries, put out this season, on four varieties of soils and one new variety of fruit. The results I design to communicate to the public through your valuable *New England Farmer*.
WM. NOBLE.

Pittsfield, July 24, 1854.

WHEN SHOULD CROPS BE GATHERED.

Some science and some practical hints, which every farmer should understand and practice upon.

The prevailing opinion is, that grass, and especially grain crops, should not be cut till ripe; or whatever may be the opinion, such is the general practice. This is an error, and one of no little consequence; and we offer some considerations, which, if understood, will, we trust, set this matter in a clear light. Let us first look at one or two lessons plainly told us by chemistry.

Wood, starch, sugar and gum are almost exactly alike in their composition. The same elements that put together in one form produce sugar, if arranged differently would make wood, and if arranged in still other methods, they would produce starch or gum. To illustrate; suppose four men should each have 100,000 bricks, 20,000 feet of lumber, including beams, boards, shingles, &c., three hundred pounds of nails, and 100 lbs. of un-mixed paints of two or three different colors. Now suppose these four men, having precisely the same amount of the different materials or elements, set about putting up four structures, each having a different object in view. One might construct an elegant cottage dwelling, the second a church, the third a barn and the fourth a prison; and by mixing and applying the paints differently, each of these structures would differ from the other so much in form and color, that one might be supposed to be built of stone, another of brick, a third of iron, and a fourth of wood, and they would be as unlike in form, color, and outward appearance, as starch, gum, sugar and wood. Either of these buildings might be taken down, and by simply re-arranging the materials, be changed to the form, shape, and color of one of the other buildings, and be made like it in every particular. Just so can a pound of wood be changed to a pound of sugar. We have often taken a board weighing a pound, and by a chemical process rearranged the elements, and change the same board to a pound of sugar. Just so a pound of starch, gum, or sugar, can be changed to a pound of wood. By artificial means this change is somewhat expensive, but in the natural laboratory of the cells and tubes of a plant, it is daily going on upon a large scale, although the elements are in themselves so small, that the change is not perceptible to the human vision.

We are not stating theories but absolute facts. While a stock of grain is unripe it contains but little woody fibre, and its pores or cells are filled with sugar, starch and gum. The presence of sugar is readily perceived by the sweet taste of soft kernels of corn and other grains, and it is also found abundantly in the sap of stalks.

The starch and gum is not so readily perceived by the taste, though they are easily shown to be present. Now as the grain and stalks ripen a large portion of starch, gum and sugar is changed into woody fibres. If the natural growth of the plant be arrested by cutting it, this change is stopped, and it dries up, with the starch, gum and sugar, and there is comparatively little hard woody matter.

But we all know that the three substances first named are digestible, nourishing articles of food, while the fourth—woody fibres—is comparatively indigestible, and on this account little nourishing. Here, then, is a plain reason why all such grasses and grains, as are designed for food for animals, should be gathered before they are fully ripe, that is, while they contain a large amount of digestible matter. Wheat, for example, if cut eight or ten days before fully ripe, contains a large proportion of starch, with a thin skin, and will yield a large amount of flour; but when it is fully ripe it is covered with a thick, hard, woody skin, or bran, which has been formed out of a part of its starch, and it will then yield a much smaller proportion of flour. The same may be said of its sugar and gum. This reasoning applies equally to other grains as well as to straw, corn-stocks, grasses, &c.

Those portions of the grain which are to be used solely for reproducing the plant—and this is the natural design of all seeds—may be left to ripen naturally. The woody coating is designed as a protecting covering.

Having thus endeavored to state very briefly some of the reasons for cutting grain early—and it must be interesting to every one to understand these reasons—we will close this article with two or three rules which are not only sustained by theory but have been fully proved by careful practice and experiment.

1st. All grasses should be cut as soon as possible after flowering. Much more than is gained in weight after this is lost by the conversion of the nourishing substance into hard, woody matter.

2d. Corn, wheat, and all other grains designed for food, should be gathered eight or twelve days before fully ripe. A simple method of determining this, is to try the kernels with the thumb nail. Let the gathering commence immediately after the "milk" begins to harden, but while the kernel still yields to a gentle pressure of the nail.

An acre of wheat, that, if cut when fully ripe, would yield 800 lbs. of fine flour, will, if cut ten days earlier, yield from 850 to 1000 lbs. of flour of a better quality, while the straw will be much more valuable for feeding.

An acre of grass, which, when cut fully ripe, would yield 1000 lbs. nourishing digestible materials, and 2000 lbs. of woody matter, will, if cut 12 days earlier, yield from 1500 to 1800 lbs. of nourishing matter, and only 1200 to 1500 lbs. of woody materials.—*American Agriculturist*.

PLANTS POISONED.—Dr. Salisbury, of Albany, N. Y., recently communicated to the American Scientific Association some experiments on plants, which illustrate the analogy existing between animal and vegetable physiology. Dr. S. extracted the poison of a dead rattlesnake, a small

portion of which he inserted in the plants by moistening with it the blade of a knife, with which he wounded a lilac, a horse-chestnut, a corn plant, and a sunflower. In sixty hours after the infliction of the wound, they began to manifest symptoms of poisoning, and in a few days all their leaves above the wound were dead. In about fifteen days they manifested convalescence, and finally all recovered from the injury.

For the New England Farmer.

ESQ. SLIDEWELL, OR THE THEORETICAL FARMER.

Mrs. Editors:—It is wonderful to contemplate the great variety of organizations bestowed on man, and all for useful purposes when directed by sound moral principles, and a sound judgment. The advantages of different organizations are readily seen, when we consider the almost endless variety of different requirements to be supplied among what we call civilized society, where multiplicity reigns instead of simplicity. Without different faculties and inclinations of mind among men, all would incline to pursue the same trade, occupation or manner of reasoning, all would be practical farmers, or all theoretical farmers, all philosophers or no philosophers at all.

It was lucky, for aught I know, that all were not theoretical farmers, considering the infirmities and imperfections of fallible human nature. Esq. Slidewell was a benevolent, kind-hearted neighbor, but he was not one of those whom "proud science never taught to stray." I have been at a loss a long time to understand how to appreciate the instructions of a theoretical farmer; some of the worst practical farmers I ever saw, were the greatest theorists. Esq. Slidewell went abroad and taught his neighbors, in a plausible theory all about farming, with such a deep degree of interest, that he forgot or neglected his own farm and affairs at home, and from pure benevolence or some other self-gratifying motive, used up his time for the public, when the public would have derived a greater benefit by his attending to his domestic concerns in a more economical and practical manner.

The Squire was an intimate acquaintance of mine, he inherited a valuable estate by way of relatives, he professed to be a farmer literally: in his younger days he was what was then called a schoolmaster, in his more mature years he occasionally represented his town in the State Legislature, and frequently served as one of the selectmen of the town; save these instances, he pretended to make farming his business for support. The Squire had a number of well-favored and fat-fleshed sons and daughters, who grew up with strong physical powers and digestive organs no way lacking when restoratives were required, or suffering by dyspepsia afterwards, every one being able to digest his meal. His farm was expansive enough for a "New England farmer," he kept cattle and other domestic animals like other farmers in his neighborhood.

The Squire's mind was stored with a good supply of plausible theories, which he was not backward in divulging to his neighbors for their special benefit; when he was abroad his instructions were so liberally dealt out, that time, which is valued by some people, escaped his notice, and in

doing good to others he sadly neglected the opportunity of attending to the things which pertained to his own good. In the spring, the Squire was so much engaged in theoretical agriculture and politics that he forgot his own fields till a late hour, then he rallied his idle sons and some of his loafing neighbors and prepared his ground for seed in a hurried manner, leaving his fences in a bad state; by the time his seeds were deposited in his half-plowed land, his practical neighbors were weeding their fields and preparing for future operations.

The heads of the family and domestics appeared to live in harmony; there was no ringing of bells and rallying in the morning, but every one left the dormitory, after sleeping to satiety, which was not at an early hour; the cows waited for their milkers till hunger made them restless, and by the time they were milked and turned to pasture, his wakeful neighbors were progressing in their field labors. Some time before noon, the heads of the female department struggled from the embraces of Morpheus sufficiently to prepare breakfast, when all hands were summoned to the table well supplied with those "creature comforts" which minister to the gratification of good appetites and capacious receptacles to receive them. After an interesting "labor of love" for about an hour, and the party having been much engaged on the subject before them, the breakfast was finished to the satisfaction of all concerned. And then for the operations of the day.

After a heavy supply of food, no man feels the speed of the "winged winds," but the Squire's help got on the move before the sun arrived at a vertical position, and as some folks have all sorts of luck but good, the Squire's fences not having been repaired in the spring, and his cattle rather impatient after long fasting, thought they could do a better business than licking up short grass, and so they experimented upon the strength of the old, rotten fences, and finding them pregnable, entered the field where the Squire's labor had been disposed of, and at it they went, mowing and reaping the Squire's growing crops by premature harvest, without remorse of conscience, or looking back to see who was coming. Instead of working in the field, the hands had to beat a cow retreat, and then do what ought to have been done in the spring, mend up the fences; thus the cattle, getting a liking to better fare, and learning the frailty of old fences, continued their vexatious intrusions through the season.

The Squire, dilatory in the extreme, followed on in the rear in all his operations; his fields were but partially hoed, his hay was cut late and badly cured, and finally the remnant of corn was harvested and put into a dilapidated, old leaky barn, to be husked late in the fall, where it remained to tempt the cattle to try the strength of "wooden walls" for something to appease gnawing hunger during the long nights in the fall of the year after the frost-bitten feed had been all devoured. It was reported, probably in truth, that the Squire's cattle made an assault upon the barn and gained admittance, without a ticket, and feasted upon the corn which they had previously tithed more severely than was allowable under the old Levitical law; and then mounted the pile and took lodgings to pass away the frosty nights of autumn.

Esq. Slidewell was quite as inattentive to the condition of his buildings, as to his farming operations; he made no repairs so long as he had a room in his house that would protect him from wind and storms; if the rain discommoded his family in one room, they retreated to another, where it rained less, and by the help of shingles and old hats they kept their windows in repair as long as there was glass enough left in the sashes to give sufficient light to distinguish day from night.

Thus time, that reconciles all events sooner or later, carried them along with but little grumbling so long as rich relatives one after another were called to a better world, and on their departure left them the means of supplying their tables bountifully from the stores of a good Providence. Thus the Squire, in his eventful life, instead of improving by experience, rather grew more negligent as he grew older, wasted or wore away, property which would have made any prudent man independent, while preaching theories to others, and neglecting the practical application of them to his own affairs. A repetition of the course described, "with but little variation," was annually pursued while he lived.

SILAS BROWN.

Wilmington, 1854.

THE WHITE DAISY.

Of all the pests that afflict the farmer, none I deal with better deserves the appellation, *intolerable*, than the White Daisy. The seed is long, slender, brown, and the rapidity with which it spreads demands of the farmer the most untiring diligence in its extermination. The mowing of hay in winter, has seeded the road-sides of this town, and they now present, for miles, a bordering of daisies. From a few seed sown when laying land down to grass, we have whole acres now thickly in blossom.

The rapidity with which the daisy increases, may be seen from the following. I to-day pulled in my meadow a stool probably three years old, from which had grown 26 stalks, bearing fifty-one blossoms. I counted 300 seeds in one blossom. Another stool had sixty stalks, and at the above rate over one hundred blossoms. Putting the number of seeds per blossom at 200, we have for the last stool 20,000 seeds; and for the first 16,200. From a little plot of ground, about four feet by five, I pulled 650 stalks, giving at above rates, 1,000 blossoms, and 200,000 seeds.

Need more convincing proofs be added, to prove to the most negligent farmer the necessity of being wide awake in the work of eradicating these pests!—and yet we see farmers resting in quiet ease, year after year, while they are gaining a foothold, and increasing in a ratio of unexampled rapidity.

CURRENT WINE.

Here is a recipe for making currant wine, worth to any of our subscribers who have a bushel of carranta, at least two year's subscription to the *Journal*. We had an opportunity of tasting wine made after it, which was of such excellent quality, that we could not resist the temptation of publishing the recipe. Here it is; try it and report the results:

To one quart of ripe currant juice add three

pounds of the very best white sugar, (the finer the quality the better,) and to this add as much water as will, with the juice and sugar, make a gallon. Put the mixture into a keg or demijohn, leaving it open for two weeks, or until the fermentation subsides; then cork it up tightly, and and let it remain quiet for five months, when it will be fit for use, and may be racked off into bottles.—*Pa. Farm Jour.*

A gentleman who has had much experience in making currant, raspberry, and grape wines, says the above recipe is a good one, but that clear wine cannot be made in a demijohn. It should be put in a keg or cask which it will just fill, so that as it ferments the scum will run off. When the fermentation ceases, cork it tightly and let it stand five or six months, and then draw it off for bottling by tapping near the bottom, being careful not to disturb the sediment.—*Eas. Rural.*

FEEDING OF ANIMALS.

FORMS IN WHICH THE SOLID MATTERS OF THE TISSUES ESCAPE IN THE URINE.

The lungs throw off, in the form of gas or vapor, a large proportion of the matters which, after being taken into the stomach, have already served their purpose in the body. The kidneys remove the greater part of that which is derived from the destruction of the tissues. The solid excretions in man amount only to a fourteenth or an eighteenth of the whole feed consumed.

In a state of health, the saline substances of the food escapes for the most part in the urine. The mineral matter contained in that part of the solid excretions which has undergone digestion, consists chiefly of earthy salts and of iron.

In man and in our domestic animals, the nitrogen of the food and tissues is also separated from the blood by the kidneys, and is found in the urine. It is chiefly in the form of a substance to which the name of urea is given. In birds, serpents and insects, it is separated in the form of uric acid. The urine voided by a healthy man in 24 hours, averages about 40 ounces, and contains about 150 grains of solid matter, which has served its purpose in the system. Of this solid matter, about 270 grains consist of urea, 8 of uric acid, and 170 of mineral or saline matter. The urine of the horse is richer in urea than that of the cow, and that of the cow than the urine of man. It is this urea which, during the fermentation or ripening of urine, becomes changed into ammonia.

The urea and uric acid discharged daily in the urine of a healthy man, contains about half an ounce of nitrogen—to furnish which requires 3 ounces of dry gluten, albumen, or flesh. If so large a proportion of that which is most valuable in food, and which has been derived from the decay of the tissues of the body, is contained in the urine, it ought to be an important object to the farmer to contrive some method of returning it without loss to the soil, that it may aid again in raising new vegetables as feed for other animals.

GENERAL BALANCE OF FOOD AND EXCRETIONS IN MAN.

The general balance of the food taken into the human body and of the excretions of various kinds, has been thus represented by M. Barral:

Every 100 parts taken in, consist of—	
Food, solid and liquid, containing in all 75 per cent. of water	74.4
Oxygen taken in by the lungs,	25.6
	100
And are given off as—	
Water perspired by the lungs and skin,	34.8
Carbonic acid, do. do.,	30.2
Evacuations, solid and liquid,	34.8
Other losses,	0.5
	100

In general the substances perspired are to the evacuations as 2 to 1.

Of course, in an estimate of this kind, it is impossible accurately to put down the several quantities given off in the form of hair, nails, surface, skin—both of the outer and inner parts of the body—&c., &c., all of which are constantly shed or out, and as constantly renewed. It is useful, however, in showing generally the relation which the oxygen inspired bears to the other food which the stomach receives, and the proportion of the work of excretion performed respectively by the perspiring organs, and by the organs of evacuation.

KIND OF FOOD REQUIRED BY ANIMALS AS INDICATED BY THE COMPOSITION OF THE BLOOD.

A knowledge of the kind of food required by animals may be gathered, as we have seen, from the composition of the several parts of the animal body, and a study of the functions they perform. The muscles must be sustained; therefore gluten, albumen, &c.—often popularly called muscular matter, must be eaten. The fat of the body must be renewed, and hence fat should be present in the food. And, as much carbon escapes from the lungs and skin, it seems natural, if not absolutely necessary, that starch or sugar should be introduced into the stomach with the view of supplying it. The mineral matter of the flesh, blood, and bones, must in like manner be provided.

The study of the excretions indicates, besides, the quantity of food of each kind which ought to be consumed. The quantity of carbon evolved in the form of carbonic acid, of nitrogen in the forms of urea and uric acid, and of saline matters in the urine and solid excretions of a healthy man, afford a means of approximating very nearly to the quantity of each which a sufficient food ought to contain; but the excretions do not alone tell us in what forms the carbon, nitrogen, and saline matters are best suited to the wants of the animal.

An examination of the blood gives us this latter information very clearly. The blood consists essentially, besides the water, of albumen, sugar, fat, and saline matter. The main purpose or object of the process of digestion is to form blood; for out of the blood are drawn the materials necessary to the wants of the bones, and of the various tissues and fluids of the body. Those forms of vegetable or animal matter, therefore, must be best adapted for food, which most resemble the ingredients of the blood which is to be produced from them. These will give the digestive organs least trouble, or will be most easily digested. Thus we arrive again at the conclusion that a healthy, nourishing, and easily digestible food ought to contain gluten or albumen, sugar or starch—which, in the stomach, readily changes into sugar—fat either of animal or vegetable origin, and saline or mineral matters of various kinds. Of

course, if the stomach of the animal be in an unhealthy condition, the quality of the food may require to be adapted to its unnatural condition; but this does not affect our general conclusion.

IMPORTANCE OF A MIXED FOOD.

All these different modes of examining the question, therefore, indicate not only the advantage but the necessity of a mixed food to the healthy sustenance of the animal body. Hence the value of any vegetable production, considered as the sole food of an animal, cannot be accurately determined by the amount it may contain of any one of those substances, all of which together are necessary to build up the growing body of the young animal, and to repair the natural waste of such as have attained to their fullest size.

Hence the failure of the attempts that have been made to support the lives of animals by feeding them upon pure starch or sugar alone. These substances would supply the carbon perspired by the lungs and the skin; but all the natural waste of nitrogen, of saline matter, of earthy phosphates, and probably also of fat, must have been withdrawn from the existing solids and fluids of their living bodies. The animals, in consequence, pined away, became meagre, and sooner or later died.

So some have expressed surprise that animals have refused to thrive—have ultimately died, when fed upon animal jelly or gelatine alone, nourishing though that substance, as part of the food, undoubtedly is. When given in sufficient quantity, gelatine might indeed supply carbon enough for respiration, with a great waste of nitrogen, but it is deficient in the saline ingredients which a naturally nourishing food contains.

Even on the natural mixture of starch and gluten which exists in fine wheaten bread, dogs have been unable to live beyond 50 days, though others fed on household bread, containing a portion of the bran—in which earthy matter more largely resides—continued to thrive long after. It is immaterial whether the general quantity of the whole food be reduced too low, or whether one of its necessary ingredients only be too much diminished or entirely withdrawn. In either case the effect will be the same—the animal will become weak, will dwindle away, and will sooner or later die.

The skill of the feeder may often be applied with important economical effects to the proper selection and mixture of the food he gives his animals generally, and at various stages of their growth.

It has been found by experiment, for example, that food which when given alone, does not fatten, acquires that property in a high degree when mixed with some fatty substance, and that those which are the richest in the muscle-forming ingredients produce a comparatively small effect, unless they contain also, or are mixed with, a considerable proportion of fatty matter. Hence the reason why a stone of linseed has been found by some to go as far as two stones of linseed cake, and why the Rutlandshire farmers find a sprinkling of linseed oil upon the hay to be a cheap, wholesome, and fattening addition to the food of their cattle and horses.

A Merino sheep of 55 lbs. contains about 20 lbs. of fat, but four-fifths of any subsequent addition consists of tallow, hence we may infer that oily food should be profitable in fattening sheep. To pigs the same remark applies; and, in prac-

tice, fat of any kind, animal or vegetable, is found to be a profitable addition to the food of these animals when they are to be fattened off.—*Johnston's Ag. Chemistry and Geology.*

For the New England Farmer.

TIME FOR BUDDING.

MR. EDITOR:—The nurseryman meets with but few; if any, more difficult tasks than that of deciding the best time for budding his young trees. As no two seasons are alike, no particular time can be established for performing the operation; but, if the seasons were alike, the locations of nurseries, and their treatment, are so various, that while some would have advanced to a proper stage of growth several weeks before the stated time, others would be as many weeks after; it therefore depends, almost entirely, upon the judgment of the cultivator, as to the best time to commence budding.

Experience has proved to me that there is a certain stage of growth which is most preferable to all others for setting buds; many suppose that any time will do, if the trees are in a thriving condition. It is true, buds can be set whenever the bark will peel, but it is equally true, that there are but a few days that they can be budded to advantage; if set at the proper time, a skillful operator will make 75 per cent. live. In your remarks upon the subject, you suggest whether it would not be better to set buds as early as the bark will readily peel.

Are we to understand by this, that you would recommend spring budding? for the bark will very freely peel soon after the leaves are formed in the spring. If so, from your opinion I beg most respectfully to differ. (a.) Trees budded early, so far as my experience teaches, do not take so well as those budded later in the season. I have invariably found that those trees which have ceased to grow ten or twelve days after the buds had been set, have done better than those budded at any other time. Trees intended for budding should be kept in a good state of cultivation, and well mulched previous to the commencement of the dry weather in July, thus securing a good August growth. For the past ten years I have budded apple trees from the 7th to the 20th of August. He who fails to make his young trees grow in August, will, in my opinion, never make a successful nurseryman. (b.)

The strings on trees budded at the right time should not be removed until the following spring, thus leaving a protection for buds during the winter. I have found nothing better for strings than cotton wicking; the cost is but 25 cts. per thousand buds.

E. HENNEY.

Hingham, July, 1854.

REMARKS.—(a.) We did not mean spring budding—though budding at that season is sometimes crowned with success.

(b.) Our correspondent says:—"I have invariably found that those trees which have ceased to grow ten or twelve days after the buds had been set, have done better than those budded at any other time. And then he who fails to make his trees grow in August will never make a success-

ful nurseryman." Does he mean that they shall grow ten or twelve days and then cease? We do not fully comprehend him.

WEEDS! WEEDS!!

We observe in passing through the country, the pastures of poor farmers crowded with armies—not of Turks and Russians—but of mullets, horse thistles and other invaders, which not only devour the strength of the land, and pay nothing in return, but continually say, like impertinent tell-tales, to every passing traveller, in the language of a celebrated writer, "Behold the field of the slothful, and the field of the man void of understanding! For lo, it is all grown over with burdocks, and Johnswort has covered the face thereof."

We take it for granted that no reader of this journal ever voluntarily allows weeds to grow on his premises, but some, however, obtain stealthy possession—and if some of our good friends of this class would go over their grounds, make a careful observation, and estimate the amount of vegetable growth thus feeding on the strength of their soil, which might as well be wheat, corn and ruta bagas, they would certainly be surprised at the amount. It would be a curious question in philosophy, why so many will thus allow a yearly waste from weeds of some fifty or a hundred dollars, with all quietness and submission, who would be ready in a moment to bring an action at law against a neighbor, whose cattle and swine should devour a fifth part of that quantity.

If we could only have all the value of the riches of the country at large thus wasted, placed in our hands for endowing agricultural schools, there would be no necessity whatever of applying to national and state legislatures for help.

Now is the very point of time for thinking this matter over, with a determination to act efficiently in the premises; and if any one is too busy or "drowsy" to attend to it, he has certainly undertaken the care of too much land, or else is pursuing a system which may emphatically be compared to "saving at the tap and wasting at the bung." No one is ever too busy to turn his neighbor's cattle out of his cornfield—and he ought to pursue the same system towards other intruders. We have known farms to be affected in market value from five to ten dollars per acre, by being kept neat and clean in one instance, and foul, weedy and repulsive in the other.—*Country Gentleman.*

BRISTOL COUNTY AGRICULTURAL SOCIETY.—The Bristol County Agricultural Society has issued a most attractive bill of premiums for their cattle Show the present year, which is to take place on the 27th and 28th of September. The New Bedford Horticultural Society will unite its exhibition with the other show. The officers of the Bristol County Society are—

J. H. W. PAGE, of New Bedford, *President.*

JOHN DAGGETT, of Attleboro', } *Vice*
NATHAN DUFFEE, of Fall River, } *Presidents.*

L. T. TALBOTT, of Taunton, *Secretary.*

SAMUEL A. DEAN, *Treasurer.*

FARMING A HUNDRED YEARS AGO.

Though farming is one of the oldest employments in which men have ever been engaged, the improvements in it have been very slowly introduced. The approaches to perfection which have been attained in its operations have been made by short steps, and those taken at long intervals. It is indeed a great art. Were all that is known of its varied progress blotted out of memory to-day, it is doubtful if, with all our modern appliances, the study of a century would suffice to give it its present position. It is only by looking back upon the past that we are able to note its improvements; for grown sciences and well developed art are old oaks,—they seem to stand from year to year without change, adding nothing to the diameter of their trunks, and their branches maintaining only their old size. A score of years make their mark through; and when the tree is cut down, each year shows its own ring.

Farmers in this country a hundred years ago could hardly be expected to pride themselves on the good condition of their farms, the excellence of their stock, or the yield of their crops. The stumps of the first forests stood in their wheat fields, and were not rotted in their oldest pasture grounds. The Indians were harassing them on the frontier, and political questions of the gravest import would have disturbed their problems of field culture, had any such problems been presented. And yet our Yankee farmers of the morn of the eighteenth century were nearly the counterpart of the farmers of England. In neither country had much notion of improvement taken root. Ambitious men were not in their ranks, and to do things as they had been done was esteemed the perfection of farming.

The good farmer lived just where his father lived, in the same old, unpainted house. He planted just as many acres of corn as his father planted. He made the hills just four feet apart, put into each hill a crab or two, dropped in four kernels of corn, and made each hill a foot or more above the surface; planted beans in the corn-field but not pumpkins; for hard as it is to believe, the time was when pumpkins were not known even in Connecticut. He sowed just as many acres of rye as his father did, and in the same lot. He plowed with just as many yoke of oxen, and with the same heavy, unwieldy plow. "Cast steel" was just then (1750) made for the first, but it was a Sheffield secret. And the best spade, hoe, shovel or plow-share, he could find, was either of cast iron and exceedingly brittle, or of such soft iron that a few days' work with it made it as dull as the next duller thing than a hoe. His oxen were small, ungainly, feeble things, compared with the fat fellows who now move off with the heaviest loads, as if they enjoyed a ton or two to ballast them. Very poor mutton it must have been that OLIVER GOLDSMITH invited SAMUEL JOHNSON to dine on; and the roast beef that HOGARTH was always painting, we suspect was a thin, lean article, after all. Farmers then did not spend their earnings studying how to make the most manure, though now how to get rid of its accumulation in their yards troubled them not a little. When the old barn fell to pieces, you may be sure it was rebuilt upon a new site. It was deemed a good opportunity to be rid of a nuisance. Nobody went sea-weeding then, and there were no seines

hauling along the shore full of rich shoals of glittering fish. Compost was a thing unknown, and a lecture on the subject would have been as amusing as a prophecy that their grand-children would sail round Cape Horn, and bring home from the Peruvian Islands something to make their corn and beans yield more abundantly. The ashes that gathered in their great fire-places went to swell the ash-heap by the back-door, and the pyramid of clam-shells along-side rivalled it in size and deformity. The cattle were left to ramble in the woods through the Fall and Spring, and went uncovered through the winter to toughen them. The pigs rooted at liberty on the village green, unless they broke into the parson's garden, when rings were put into their snouts to check their mischievous propensities. When they were gathered into pens, the pens were by the roadside, where every boy that went to school had a pull at their ears, and the fragrance of their cleanly quarters regaled all passers-by. Such a thing as rotation of crops had not been proposed. Where he planted corn last year when the walnut leaves were just the size of a squirrel's ear, he planted it again this year. Where he sowed rye then "in the old of the moon," he sowed it again this year, and the same corner was kept for the potato-patch years together. When wheat would no longer grow in the exhausted field, he left it for grass to come in. And when the old pasture grounds utterly failed, they were left for briars, bushes, and such forest trees as could, to struggle up. Sowing pine seeds, or planting a forest, would have seemed simply ridiculous. There were a few orchards cultivated, but they produced neither choice nor luscious fruit. Their principal object was the cider-barrel, for which a very poor species of fruit answered very well. When the old fields declined to surrender their profits enough to pay for their cultivation, the more enterprising pulled up stake, and pushed out into new settlements. It was a great undertaking, but some of them penetrated into the Far West, even as far as the banks of the Hudson. But the more ambitious sons of a family eagerly embraced any opportunity that offered, to adopt the life of a mechanic, sailor, or particularly that of a tradesman—employments that were honorable because they were more profitable; and, by following them, they sooner attained to independence.

It was slow work for Agriculture, creeping out from so debased a condition. There were learned Englishmen laboring, however, for its improvement and their labors were early appreciated here. The writings of Sir John Sinclair and Young, and the experiments of Bakewell, generated a new interest in the subject, and societies for the promotion of agricultural science began to be formed on both sides of the ocean. A clergyman, Rev. Jared Eliot, published the results of his experiments at farming in Connecticut, as early as 1747, with marked advantage to the people. There was a Philadelphia Society for the promotion of agriculture established in 1785, and one in Massachusetts in 1692. Premiums and exhibitions soon came in vogue. The embargo of 1807, which blighted so severely the commerce of the Eastern towns, gave farming a new impulse. And though since then thousands of obstacles have interposed, and fields which then first began to develop their fertility and strength have since been

built over with manufacturing establishments, and the old farms are contracted into mere door-yards and gardens. Agriculture has grown apace until it needs a year-book of goodly size to record its improvements, and a bulky census to expose its wealth.—*New York Times.*

VETERINARY HOMOEOPATHY.

MR. MOORE :—I take the liberty of forwarding to you by mail, a small volume entitled "*Veterinary Homoeopathy*," by Russ, published in Philadelphia.

The rational treatment of Domestic Animals is gaining ground daily, and fast superseding the old and barbarous system. I have tried it to some extent, and find it acts more promptly on animals than on persons, for the simple reason that their food is not so artificial, and besides, they have no imagination to draw upon. I have treated successfully various cases of acute colic, in horses, "hollow horn" in cows, catarrh or influenza in horses, even when it was supposed to be glanders; also the various stages of distemper, and other ailments too numerous to mention. All roweling, bleeding, drenching, and kindred heroic remedies can be dispensed with.

Though not a "graduate" nor a "practitioner," I have some small medical knowledge—and great desire to lessen the suffering of both man and beast; hence I trouble you in this way, and would bespeak for this beautiful system your candid consideration. I have received a medical education at the Homoeo. Med. College in Philadelphia, but attended more as an amateur, than with a view of going into, and becoming a general practitioner,—for the reason, that I had too much other business on my hands, and was too old a man to undergo the fatigue of a country practice. I am well satisfied that the general introduction of this system among farmers, will be the means of saving the lives of much valuable stock, and eradicate many hereditary taints to which they are heir.—*Wool Grower.*

For the New England Farmer.

TRAINING YOUTH TO A WRONG OCCUPATION.

MR. EDITOR :—Though but a youth myself, still I consider I have a right to represent the rights and wrongs of youth as a class. There are many parents who persist in training their children to a pursuit which they have no inclination nor taste to pursue. Most farmers think their sons must follow in their track, whether they have a taste for other pursuits or not. Perhaps a boy has a tact for trading, or he may be very ingenious, and would like to be a mechanic, but no, says the parent, while you are under my control, you must do my bidding. Such parent's are not looking out for their children's future welfare, but only for their own present interest. If parents would consult their children more, and give them the pursuit they naturally tend to, it would be for their good, and for those they give it to. For how can a man engage in a particular pursuit and have it profitable, unless his mind and inclination are also thrown in with it?

Lynnfield, 1854.

A YOUNG FARMER.

THE FARMER'S SONG.

BY WILSON FLAGG.

A late dismal story our ears hath assailed,
That your banks and your merchants and brokers had failed;
But ne'er in the wealth of our country despair,
While the weather and season will smile on our care.
From the banks of our rivers good specie we raise,
Fine silver in wheat, and bright gold in our maize.

In the banks of the earth we deposit our wealth,
And reap, with the interest, vigor and health;
Kind Nature's our banker, and all our wide fields
Are the mart that the profits of industry yields.
Though our traders have failed, we are not so forlorn,—
Bring the notes of your banks, and we'll pay them in corn.

We learn that your bankers have issued their notes,
Till like leaves in the autumn, their paper coin floats;
They promise to pay "on demand" you'll peruse,
Yet the gold for their paper they often refuse.
Trade with us, and you'll neither be shaven nor shorn;—
The farmers ne'er give you the husks for the corn.

We speculate only in weather and soil;
Our gains are the well-earned reward of our toil;
Though moderate, still they are solid and sure,
And while we have vigor, our wealth will endure.
Our banks, where we safely deposit in spring,
A rich dividend in the Autumn will bring.

What a treasure of wealth will our pastures unfold;
Our woodlands are surely far better than gold;
And all your bright silver no profit will yield,
Except as 'twill purchase the fruits of the field!
And unless your bank money a change soon receives,
'Twill ere long be too worthless to purchase our leaves.

Yet of our own calling 'tis idle to boast;
And now both our merchants and bankers we'll toast:—
Here's to banking and commerce and all honest trade;
Our wealth would all perish without their just aid.
And while both to justice and truth they are sworn,
Bring the notes of your banks and we'll pay them in corn.

A BEAUTIFUL PICTURE.

The man who stands upon his own soil, who feels that by the laws of the land in which he lives—by the laws of civilized nations—he is the rightful and exclusive owner of the land which he tills, is by the constitution of our nature under a wholesome influence not easily imbued from any other source. He feels—other things being equal—more strongly than another, the character of a man as Lord of an inanimate world. Of this great and wonderful sphere, which, fashioned by the hand of God, and upheld by his power, is rolling through the heavens, a part of his—his from the centre sky. It is the space on which the generation before moved in its round of duties, and he feels himself connected by a visible link with those who follow him, and to whom he is to transmit a home. Perhaps his farm has come down to him from his fathers. They have gone to their last home! but he can trace their footsteps over the scenes of his daily labors. The roof which shelters him was reared by those to whom he owes his being. Some interesting domestic tradition is connected with every enclosure. The favorite fruit tree was planted by his father's hand. He sported in boyhood beside the brook which still winds through the meadow. Through the field lies the path to the village school of earlier days. He still hears from the window the voice of the Sabbath bell which called his father to the house of God; and near at hand is the spot where his parents laid down to rest, and where,

when his time has come, he shall be laid by his children. These are the feelings of the owners of the soil. Words cannot paint them—gold cannot buy them; they flow out of the deepest fountains of the heart, they are the life-springs of a fresh, healthy and generous national character.—*Edward Everett.*

For the New England Farmer.

A NEW WIND-MILL.

S. BROWN, Esq.:—Dear Sir,—I send you herewith a letter to me from an old friend, which if you think best you, will please publish in the *Farmer*. I know nothing of the newly-invented wind-mill my friend describes more than you can learn from his communication. He is of quite a scientific turn of mind, and I think it quite probable the invention may prove valuable to the community.

F. HOLBROOK.

Brattleboro', August 2, 1854.

MR. HOLBROOK:—Dear Sir,—Knowing the interest which you take in any new invention of merit, particularly, such as directly benefits the agricultural community, I am induced to write you respecting a wind-mill of an entirely new construction. Within the last few years I have noticed many inquiries in the scientific and agricultural papers of this country, respecting wind-mills, stating, that if some ingenious mechanic would invent machinery to be carried by wind, which could be regulated with but little difficulty, and of a permanent, durable construction, not likely to be destroyed by severe gales, he would not only be doing the public a great service, but would most assuredly acquire a fortune thereby. For centuries, the civilized world has been looking for something of this kind. In the retired village of Ellington, Conn., DANIEL HALADAY, a young mechanic, has, after one year's trial, succeeded in producing a wind-mill, or wind-engine, which regulates itself. When terrific gales strike it, the broad wings swing back, presenting only their thin edges to the wind, and when the extra pressure has passed, the fans, of themselves, swing back, presenting their surface to the wind, or such a part of the surface as the pressure will admit of. The mill we have there in operation, has been running since early last spring, proving by a fair trial its utility and capability of regulating itself through severe storms. The wheel is ten feet in diameter, having five foot fans; they will be enlarged as more power is required.

This one draws water from a well 28 feet deep, and 100 feet distant, forcing it to supply a barn, blacksmith's shop, and fish-pond, all of which have been bountifully supplied by it. Repeated trials and their failure in producing a desirable wind-power, has nearly discouraged farmers from attempting its use. I recollect that when a boy, I was tending a four horse-power steam-engine in your village, and for a moment detached the regulator: the movement became immediately so rapid and violent, that, had I not quickly replaced it, the increased speed would have torn it from its foundation. Now, many times there is a pressure in the air, as great as that upon the steam-engine; yet people, to some extent, are trying to use this power with nothing to control it, and the results are violent, irregular, motion, and frequent

breaking of machinery. I now see but one objection which can possibly be raised to this power—that is, the wind does not blow constantly. To this I offer the following considerations:

1st. You have a good working power, for one-half the days, and nights also, during the year, and at times a mill will run night and day for two weeks in succession.

2d. This mighty agent, of almost unbounded power, costs nothing—the Creator makes it a free gift to all. Many millions of horse power, go sweeping through the heavens, over every man's farm and work-shop, which the skill of man can now control, using it to pump water for beautifying grounds with ponds and fountains, supplying houses, watering stock, irrigating land; and if applied to machinery, the extensive farmer will use it to thresh grain, saw wood, cut hay, &c. In using it to supply water, large reservoirs can be built to draw from, in case the mill should be still for a few days. It is very appropriate for irrigating land, making flowers, fruits and grains to grow, where the mullein and sorrel, now scarcely find nourishment, and where now the dismal croak of the frog is heard, the clear music of the scythe and whetstone to ring upon the morning air.

The inventor will soon commence the manufacture of these mills on a large scale, and notify the public by advertising the same in the *New England Farmer*.

Very truly, your friend,

New Haven, July 19, 1854.

I. B.

REMARKS.—There is scarcely anything which would prove of more substantial service to the farmer, than the means of collecting and distributing water at his pleasure. On many farms large quantities of pure water are collected by drainage, which run idly by, while all the water needed for a large family and a large stock of cattle, sheep and horses, has to be raised by human toil. If a cheap, substantial, and permanent power were devised, all this labor might be given over to the sport of the winds, and thousands of gardens and lawns and fields irrigated, so as to add immensely to the beauty of the landscape, and untold profits to the labor of the husbandman. We earnestly hope that the mill here spoken of, will meet the general wants of the people, and that our friend will let us know more particularly about it.

For the New England Farmer.

BUDDING.

In your paper of to-day, I saw a few remarks on budding. You suggested the propriety of inserting buds two or three weeks earlier than common, and for the two or three years past, I have commenced budding as soon as I ascertained that the bark would peel, inserting a few occasionally, as I found time, as long as it would peel, and I found that many of the early buds failed, while most of the latter lived. Being desirous to know which would do best, early or late budding, I inserted buds in the same stalks with my first budding, two or three weeks after the first budding, and found that the last buds mostly lived; whilst the first, but few survived, though some of

them adhered to the stalks, and healed up and appeared green, and remained stationary through the first and second seasons and the present season have sent out some very feeble shoots, showing that the bark will peel before the buds are old enough to terminate.

A SUBSCRIBER.

ATTEND THE FAIRS.

The order of these anniversaries is as follows:

Buckingham County, at Exeter.....September 13 and 14.
Grafton County, at Lyme.....September 21 and 22.
Sullivan County.....Not determined.
Cheshire County, at Keene.....September 26 and 27.
Merrimack County, at Fisherville.....September 27 and 28.
Hillsboro' County, at Nashua.....September 28 and 29.
State, at Keene.....October 3 and 6.

Now we have a few words to say in this connection relative to attending these anniversaries. One object of Fairs, and perhaps we may say the great object, is to afford an opportunity for all present to witness the product of the farmer's skill and toil—to see what cattle he rears, what grain he produces, what fabrics are manufactured beneath his roof—that all may learn his method of management and be benefited thereby. The exhibitor himself is not the only one to be profited by presenting his stock, his dairy products and his domestic manufactures. To be sure, competition may arouse his ambition and induce him to make more vigorous efforts. But the real benefit to be gained is by comparing his own with similar articles presented by others.

But I have nothing to present, says one; why need I attend? For the very reason which you would assign for not attending. When you have made up your mind to attend the Fair for the sake of learning, you have already done much—you have "conquered your prejudices." You go with an honest motive. You pass around from yard to yard among the cattle—you examine the horses, the sheep, the swine—you pass through the dairy hall—see the butter and cheese; near by you find an abundance of fruit and of garden vegetables; you cannot pass over the countless articles contributed from the female portion of the farmer's household. You see more than you imagined your little county produced. You find much to admire—much to inspire you with a determination to exert more power and apply yourself more earnestly to your products in future. But as you pass along you behold manifold objects far less deserving than those produced by your own hands; you are satisfied that it is so, and your modesty will not prevent you from declaring it. The next year you too are a competitor, and most likely a successful one. Your whole family are interested in the Fair.

You have reaped a benefit unexpectedly. But this is not all, you make fifty acquaintances; you talk of your common products, you learn new methods of cultivation, you acquire more new thoughts than you before supposed your mind capable of containing, and if you are wise, you will put some of them into practical operation as soon as you have an opportunity. From these you will make new acquisitions, and in time you will gain another benefit, where you anticipated nothing at the beginning.

For these reasons—for the benefits which will arise to yourself and your children—attend your County Fairs; and when a farmer has spent one

day in examining the best stock in his own county, and found, as he unquestionably will, better animals than he expected, he has prepared his mind to extend his observations still further. He desires to know if other counties can do as well. The information he has gained at one exhibition will be doubled at a second, and increased in a three-fold ratio at a third or a fourth. It is impossible for a man to go with open eyes, to a County exhibition, away from his own neighborhood, without acquiring new facts, and gaining some information in relation to his daily labors.

The same is true, only in a greater degree, in regard to the State shows. Here he will obtain a sort of summary of the whole, a condensation and review of the subject matter which has been before him.

We would therefore advise farmers to attend all the Fairs in the State, so far as it is possible. Go and make comparisons for your own good and for the common benefit of those who labor with you.

Societies should take pains to send delegates, and have reports published concerning kindred associations, and we hope this fall, as our Fairs are so well arranged, to see delegates sent from every society to every other, and to read from those delegates full reports of what they witnessed at these exhibitions.—*Granite Farmer*.

MACHINERY IN FARMING—ITS ABSOLUTE NECESSITY.

It is not enough that farmers avail themselves of all the advantages which chemistry affords in its application to their art; it is not enough that they learn how to save as much as possible of the manures made on their premises, and the best methods of applying these and also purchased specific manures; it is not enough that they know at what seasons and to what depths their soils should be cultivated. They must perform as many of the operations of farming by machinery, as machinery can be made to perform to advantage.

There is no other way in which agriculture can keep pace in respectability, pleasure and profit, with other arts. Without this expedient it will be outstripped by them, and sink steadily in comparative rank.

By machinery, as we use the word here, we mean all mechanical contrivances which can be substituted for manual labor, and combined with manual labor so as greatly to increase its productiveness.

And the policy which we recommend includes also animal labor, and as a more powerful co-operator with it.

So far as a horse or an ox can be made to do the work of five men, the horse or the ox earns the net product of five men's labor for the employer. If one man cultivates as much corn, and cultivates it well, with one horse, attached to a cultivator, as his neighbor cultivates with ten horses in the hands of ten men, it is easy to see which of the two is travelling the fastest on the road to wealth.

So in cutting grass, in planting and harvesting grain, in shelling corn, and in various other operations of the farm, machines can do the work for a small per centage of the cost of manual labor.—*M'Kain's Courier*.

For the New England Farmer.

NATIVE ORNAMENTAL TREES.

Knowing as I do, that the editor of the *Farmer* entertains an enthusiastic love of the beautiful throughout the varied manifestations of nature, as well as an active and substantial regard for the useful, possibly a word in favor of some of the many beautiful and noble trees of our native land, as ornamental, and yet useful and necessary, may not be altogether in vain.

Why may not the lofty elm and the towering pine, the stately walnut and the sturdy oak, the pretty maple and symmetrical hemlock, compare favorably with any from a foreign soil? Then there is the ash with its dark foliage, and the poplar with tremulous leaves, the delicately perfumed locust, and others "too numerous to mention."

Dear bought, and brought from far, may better suit the taste of the city gentleman, but the country nobleman, who tills his lands with his own hands, and reaps the reward of his willing toil from the yielding surface of his own soil, will recline at fervid noon with self-satisfaction and complacency, under the over-arching boughs of some stately forest tree which he himself may have planted in his youth.

Go, then, and plant trees that shall yield rich fruits and afford thee grateful shade. I. S.

8th mo., 1854.

REMARKS.—We duly appreciate your brief and appropriate hints, and hope every reader will. There are no trees more beautiful than some which you have named. The palm tree itself does not exceed the hemlock in beauty, and in gracefulness the elm cannot be outdone. Our forests are full of trees that are exceedingly pleasant to the eye.

USE AND INFLUENCE OF LIGHT.

Light comes next to air and warmth, in its influence on the vigor and health of both animal and vegetable life. It is true we could live in the dark, but it is not healthy to keep shady, even in a physical point of view.

The rays of the sun have a remarkable influence on the growth as well as the health of animals and vegetables. It is a fact that the men who work in the coal mines of Europe, are subject to peculiar forms of diseases. This can only be accounted for by their living far down in the depths of the earth, away from the vivifying light of day. It has been found that domestic animals will not thrive and grow when kept in a dark place, though ever so well fed and cared for in other respects.

It is a fact well known to medical men, that in crowded cities, the inhabitants of houses on the north side of a street, where all the principal rooms are well lighted, suffer much less from sickness than families living on the other side, all other causes of health and disease being, as far as can be ascertained, exactly the same.

The custom of excluding light from houses by heavy and thick window curtains, now so common, may preserve the furniture, but does not always preserve the health of its inmates. This is especially the case with regard to sleeping-rooms, which should not only be well aired, but

during every fair day should have the benefit of all the sunlight which the windows can admit. Who that has ever been a sufferer from dyspepsia, rheumatism, or any other of the lingering diseases of our climate, has not noticed the difference in his feelings on a dark cloudy day, and in the bright, cheering, smiling sunshine?

The effects of sunlight are still more apparent upon the vegetable than upon the animal. What a difference there is in the quality of the "pasture ash," so called, and that which grew in the deep shade of the forest, not only in the form of the tree, but in the strength and texture of the wood. This difference must no doubt be owing mostly to the exposure to the winds, difference of soil, &c., but in a great measure to the influence of light.

We often see vegetables stretch upward in order to get at the light, seeming to have a sort of intelligence in regard to its necessity in the process of maturing its flowers and fruit. The scape or stalk of the dandelion, for instance, which supports its flowers, if it grows where there is nothing to shade it, is seldom more than three or four inches long, but among tall weeds, or grass, where shaded, it will sometimes grow to the height of two feet in its endeavors to avoid the overshadowing influence of its neighbors, and gain free access to the light. Gardeners sometimes take advantage of this fact, and obtain long stalks of rhubarb early, by placing a barrel with each end knocked out over the spreading leaves. The leaves stretch up towards the light at the top, and thus they get long and tender stalks for early use.

Plants kept in the house always lean towards the nearest window, and we have this summer seen a cornfield adjoining a thick grove of tall trees, where the plants, for some distance from the trees, leaned away from the shade, the plants in the rows nearest to the trees standing at an angle of fifteen degrees from perpendicular, and gradually becoming erect as the distance increased. One reason why light is so essential to healthy vegetation, is undoubtedly this, viz: the decomposition of the carbonic acid in the air, or in other words, the absorption of carbon from the air, one of the most important sources of nourishment to vegetables, can take place only through the agency of light. In the shade, the process goes on very feebly, and in night is wholly suspended.—*Maine Farmer.*

SALT YOUR CHIMNEYS.—In building a chimney, put a quantity of salt in the mortar with which the inner courses of bricks are to be laid. The effect will be that there will never be any accumulation of soot in that chimney. The philosophy is thus stated: the salt in the portion of mortar which is exposed absorbs moisture from the atmosphere every damp day. The soot thus becoming damp, falls down to the fireplace. This appears to be an English discovery. It is used with success in Canada.

TO RUIN A SON.—1. Allow him to have his own way.

2. Let him have plenty of money.

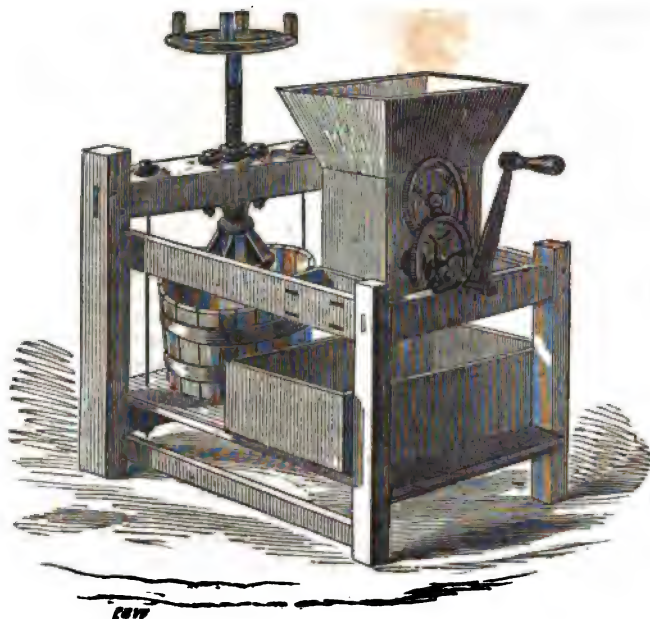
3. Let him roam about on Sunday.

4. Let him be disrespectful to his parents.

5. Give him bad companions.

6. Call him to no account for his evenings.

7. Give him no steady employment.



HICKOK'S PATENT IMPROVED CIDER MILL.

The machine is made to run by horse, steam or hand power, and when the apples are ground, a small boy of fourteen years can press the pomace with all ease.

In all former times it was supposed that a large quantity of cider could only be made by using a ponderous machine, that slowly crushed the apples without grinding them fine. They were then made into a massive cheese in straw, and a most severe and long pressure was required to extract a portion of the cider—a considerable quantity being absorbed by the straw and the mass of pomace; and to obtain this unsatisfactory result, the farmer had to take all his hands, and perhaps his six-horse team, and devote a whole day that could have been more profitably employed, to make from six to eight barrels of cider. To obviate the difficulty the farmers have heretofore labored under, this machine has been invented, and the statement of a few facts will prove that it is not only the best machine of the kind in existence, but it is the most profitable that a man can have on his farm. The apples are by this machine grated up into a fine pulp, so that it requires but a comparatively light pressure, and that but a minute or two, to extract all the cider, it being ascertained by practical experiment that one-fourth more juice can be obtained, than by the old process. Besides this, it only requires two hands to grind up and make into cider a larger quantity of apples than can be possibly done on the old fashioned machines. On

this press, owing to the compactness of the pomace in the tub, and the complete manner in which it is ground, a pressure of from three to five tons—that can easily be obtained—will produce a more favorable result than fifty tons pressure on the ordinary cider Press, even if the apples were ground as finely as on the improved mill; and if the apples were merely crushed as on the nut machine, it would require a pressure of one hundred tons to produce the result accomplished by this Patent Mill. The following may be adduced as the decided advantages of this mill:

First—It will make more cider than any other press, with a given quantity of apples in a given time, and with much less labor and expense.

Second—It will make cleaner and sweeter cider than any other mill.

Third—You can make the cider as you want it, and when you want it—and in quantities from one gallon to six or ten barrels.

Fourth—With it you can press your currants, cherries, berries, cheese, butter, lard and tallow.

Fifth—With it you can save *one-fourth of your time in making apple-butter.*

Sixth—With its use you can at all times have fresh and sweet cider.

By referring to our advertising columns the reader will learn where these mills may be purchased.

Dr. G. H. DADD, of Boston, Veterinary Surgeon, author of the *Modern Horse Doctor*, &c., proposes to make a tour through the West-

ern States, in the month of September, for the purpose of making himself acquainted with the diseases of horses and cattle in that section; and at such places as the people may desire to hear him, will lecture on Veterinary Science.

AMERICAN FARMERS IN PALESTINE.

The following interesting statement of a new agricultural enterprise near Jerusalem, is copied from a late number of the *New York Tribune*:

"Two years ago, an effort was made in a new line to ameliorate the condition of the inhabitants of Palestine. Seven Americans, with improved plows and other tools, and American seeds, located upon a piece of land seven miles from Jerusalem, one mile from Bethlehem, and made preparations for farming after the American system.

"Their location was in the valley of Artos, upon the very site of one of the gardens of Solomon.

"Their friends in the city were much opposed to their going out there to reside, urging them, if they were determined to try to cultivate the soil, to keep their residence in the city, for fear of the Arabs. This did not suit their plans, and they took up their residence upon the land and commenced operations, plowing deep with one of our best plows, harrowing with an iron toothed harrow, such as was never seen there before, and planting corn, potatoes, beans, peas, oats, barley, wheat, and all sorts of garden vegetables; in short, making a perfect American farm.

"The operations, instead of exciting the jealousy of the Arabs, aroused them to a state of surprise, and the news of what the Americans at Solomon's were doing, and the wonderful tools they were using, and how peaceable and quiet they were, never saying anything about their religion, flew on the wings of the wind, and visitors came to look and wonder, from far and near. The operations of the carpenter and blacksmith were not among the least sources of wonder. The rapid manner in which he heated his iron, and hammered it into just such shape as he desired, was beyond the comprehension of the simple-minded people.

"One day the farm received a visit from twenty-five Sheiks, who inspected all the tools, and the way they were used, and the effect produced, and looked at the growing crops, so much beyond anything they had ever seen produced before, and then turned their heads together to consult upon the wonders they had witnessed. The conclusion was that the people must possess a very superior kind of religion, as that is the standard upon which they base all their estimates of character. They made applications at once for several of their sons to serve as apprentices to learn American farming, and did not even object that they should be taught the principles of American religion; for surely, said they, it must be a good religion, as these are very good people, and God blesses their labor beyond any other in all Palestine.

"It would have been dangerous now for any one to molest the American farmers, since they had all the Sheiks and principal men in the country on their side, and anxious for their success and influence. The Jews, too, began to think it would be better for them to cultivate such a fruitful soil than starve in the city, as many of them have done,

and they began to apply for situations as laborers, notwithstanding the priests always taught them that it was derogatory to the national character of the Hebrews to till the soil. Though, if they had undertaken it by themselves, they would not have been permitted by the Arabs, who hunt them as they would wild beasts. But under the protection of the American farmers, the Arabs will permit them to labor, and it is now a matter of serious discussion among those who know of the success of this enterprise, whether the most feasible plan for colonizing the Jews in Palestine is not to make them cultivators of its rich soil.

"Owing to some difficulty which arose in regard to the title of the land, they commenced upon in the Valley of the Artos, the little colony moved last year to the Plains of Sharon, where they have got a permanent location, and the number consists now of ten Americans, male and female, and two Germans.

"One of the number was in our office a few days since, from whom we derived these facts. He speaks in most encouraging terms of the success of the agricultural project, and ultimately, by that means, of an influence upon the inhabitants, that will eventually result in great good.

"This effort has been made through the liberality of a few Christians in this city, and by the same spirit that actuated the first movers in the work, immense benefits may be conferred upon that country. All that is wanted to make it a desirable country for the emigrants of Europe is an increase of the present colony sufficient to form a nucleus or rallying-point, and more extended operations, and a gradual drawing in of the resident population to adopt the same modes of producing the varied and profitable products of the soil.

THE SWALLOWS.

During the week ending the 22d of July, these interesting birds had been gathering in large numbers, and making preparations for their brumal retreat, and on the evening of the 25th, or early morn of the 26th, the great congregation of them, left the locality of our residence for their winter home in the South. On the morning of the 26th, as early as half-past four o'clock, not even one swallow could we see, where hundreds might have been seen at that time for many previous mornings. During the day some dozen visited their old haunts, and about as many were seen for two or three days, when, on the first day of August there was a new influx and they could be counted by scores—the latter, however, remained but a short time, and a few only were seen on the 4th and 5th. We conjecture that the second gathering in large numbers was of those coming from far North, perhaps as high up as Hudson's Bay, and pausing here for a day's rest and food.

The chimney swallow and purple Martin are with us still. Last year the Martins left on the 8th of August.

☞ Agriculture, like the leader of Israel, strikes the rock—the waters flow, and the famished people are satisfied.

For the New England Farmer.

THE WHEAT CROP.

MR. BROWN:—I wish to follow your advice in regard to raising wheat, believing with you, that "there is no necessity for the farmer to pay out much cash for flour;" but as I have had no experience in the raising of wheat, I shall be very thankful if you would give me some advice on this subject. I have land that is very clayey, and that which is much lighter, though not sandy; but that on which I should like to try the experiment with wheat is land lying on the river, and is supposed to have been made by the action of the water, as the bank on the opposite side is continually wearing away and forming on this side. The soil is very deep, and sufficiently dry to be worked at any season of the year when our common uplands can be. This land has never been plowed, but still bears quite a good crop of grass, almost as good as English. I wish to turn it over, enrich it and seed it down to grass again. If you will be so kind as to tell me what you think about wheat growing on this land, and give some general, or perhaps I should say, particular directions about it, you would do me, and I presume many of your subscribers, a favor.

Would leached or unleached ashes, with a liberal supply of manure from the barn cellar, be a suitable manure for wheat, (a.) When should it be sown,—how much per acre. (b.) If this blue stem is the best, where can it be obtained—at what price? It would be convenient to get wheat from a friend in Maine, if it would be advisable to do so. Would thank you to say whether it is well to sow grass seed with wheat,—suppose I ought to know this, but do not. (c.)

I am aware it is much easier to ask questions; but I feel that I am speaking to a friend, though personally a stranger. I am much pleased with your paper, not only with the agricultural department, but in regard to the great moral questions of the day. I think it breathes the true spirit, and is doing much good. May you and your paper live to see great improvement in the agricultural, moral and religious world.

Yours most respectfully,

Taunton, July 31, 1854.

SUBSCRIBER.

REMARKS.—As a general rule, any land that is good grass land will answer for wheat, and that would probably be land of granitic formation. It would be well to try a small piece on your new land.

(a.) The ashes and the barn-cellar manure will be a suitable dressing, if the manure is not too coarse and green.

(b.) Sow the last of this month or early in September. If the land is in high condition, one bushel of seed; if only in ordinary condition, one bushel and a peck. We should prefer seed wheat from Maine, to that raised here.

(c.) Grass seed is sometimes sown with wheat and does well, and if we were quite desirous to save the labor of seeding alone, we should risk it, but should prefer to take off the wheat crop, then plow, manure, and seed to grass by itself. A dressing of lime will have a strong tendency to

secure a crop, even if it be but six or eight bushels to the acre.

THINK OF ME.

Go where the water glideth gently ever—
Glideth by meadows that the greenest be,—
Go listen to our own beloved river,
And think of me.

Wander in forests, where the small flower layeth
Its fairy gem beside the giant tree;
List to the dim brook pining, while it playeth,
And think of me.

Watch when the sky is silver-pale at even,
And the wind grieveth in the lonely tree,
Go out beneath the solitary heaven,
And think of me.

And when the moon riseth, as she was dreaming,
And treadeth with white feet the lulled sea;
Go, silent as a star beneath her beaming,
And think of me. *Reynolds.*

FEEDING OF ANIMALS—CONTINUED.

Kind and quality of food necessary to maintain a healthy man.—Prison dietaries.—Food required by other animals.—Practical value of the constituents of milk in feeding the growing calf.—Effects of long-continued dairy husbandry upon the quality and produce of the soil.—On the growing of wool, and its effect upon the soil.—Of the practical and theoretical values of different kinds of food.—Relative proportions of food for man yielded by the same herbage in the forms of beef and milk.—Influence of circumstances in modifying the practical values of animal and vegetable food.—Concluding observations.

Practical experience sustains and confirms all the theoretical views, and the deductions, chemical and physiological, which have been advanced in the preceding chapter. To a few of these practical confirmations I shall briefly advert.

KIND AND QUANTITY OF FOOD NECESSARY TO MAINTAIN A HEALTHY MAN.—PRISON DIETARIES.—FOOD REQUIRED BY SHEEP AND CATTLE.

The dietaries of prisons, and their effects on the bodily health and weight of the prisoners, afford one of the simplest methods of testing the influence of kind and quantity upon the nourishing power of food. In such establishments—though open to the objection that the prisoners are in a state of unusual restraint—experiments can be performed so much more accurately, and on so much larger a scale than elsewhere, as to make them worthy of a very considerable amount of confidence.

An inquiry lately made into the comparative health and food of the inmates of the Scotch prisons, has afforded very interesting materials for proving the necessity of a mixed food, and of a certain minimum proportion of that kind of food which is supposed especially to sustain the muscular and other tissues.

In the course of the preceding chapter we have stated:

1. That a healthy man in ordinary circumstances voids daily about half an ounce of nitrogen in his urine alone. To supply this he would require to consume three ounces of dry gluten, albumen, or flesh.

2. That altogether he gives off from the lungs, skin, and kidneys, about 350 grains, or five-sevenths of an ounce, to supply which he must consume about five ounces of the same materials.

But in a state of temporary confinement, when not subjected to hard labor, this quantity may be safely diminished. Yet even here there is a limit

below which it is unsafe to go. In the Scotch prisons the weight of food given to prisoners confined for not more than two months, and not subjected to hard labor, is uniformly about 17 ounces, and the proportion of gluten or nitrogenous food contained in this is about four ounces. Where this proportion is maintained, the average general health and weight of the prisoners improve during their confinement. Where the contrary is the case, the weight diminishes, and the health declines. This is shown in the following tabular view of the kinds and weight of food given in five of the Scotch prisons, and its effects upon the weight of the prisoners:—

JAIL.	FOOD GIVEN.			Per-centage of prisoners who lost weight.
	Nitrogenous.	Carbonaceous.	Total.	
Edinburgh,	4 os.	13 os.	17 os.	18 lost 1½ lb. each.
Glasgow,	4.06	12.58	16.84	32.66 4 "
Aberdeen,	3.98	13.03	17	32 4.2 "
Stirling,	4.27	18.4	17.67	50 4.35 "
Dundee,	2.75	14	16.75	

This table shows that, with the Edinburgh dietary and management, 72 per cent. of the prisoners either maintained or increased their weight, while only 18 per cent. diminished in weight, and that only to the small extent of 1½ lbs. each. In Glasgow the result was less favorable, though even there, out of nearly 500 prisoners, only one-third diminished in weight.

The same was the case at Aberdeen and Stirling; so that in these three places the diet may be regarded as, on the whole, sufficient. But in Dundee, one-half of the prisoners (50 per cent.) lost weight during their short confinement; and the cause is obvious, in the diminished proportion of muscle-forming food, which in this case was reduced to 2½, in place of four ounces.

And it is an interesting fact, as marking the close connection between science and practice, that this deterioration in the quality of the diet was caused by the substitution of molasses for the milk, which had been previously distributed to the prisoners along with their porridge of oatmeal. Milk is rich in nitrogenous food, while molasses contains none; and the substitution was immediately followed by a perceptible falling off in the health and weight of the prisoners. So general are the evils which may arise from ignorance or disregard of scientific principles in a single director or directing body. The apparently trivial substitution of molasses for milk brought weakness and want of health on the inmates of an entire prison.

In the feeding of other animals, similar results follow from similar inattention to the requirements of animal nature. Of dry hay it has been found, in practice, that cattle and sheep require for their daily food—

An ox at rest,	2 per cent. of his live weight
.. at work,	2½ ..
.. fasting,	5 .. at first.
.. half-fat,	4½ ..
.. when fat,	4 ..
Milk cow,	8 ..
Sheep, full-grown	3½ ..

In the case of the ox the daily waste or loss of muscle and tissue requires that he should consume 20 to 24 ounces of gluten or albumen, which, as may be calculated from the table given in a subsequent section, will be supplied by any of the following weights of vegetable food:—

Meadow hay,	- - - 20 lbs.	Turnips	- - - 120 lbs.
Clover hay,	- - - 16 "	Cabbage,	- - - 70 "
Oat straw,	- - - 110 "	Wheat or other whole grain,	- - - 11 "
Pea straw,	- - - 15 "	Beans or pease,	- - - 6 "
Potatoes,	- - - 60 "	Oil-cake,	- - - 4 "
Carrots,	- - - 70 "		

Or instead of any one of these, a mixture of several may be given, with the best results. But if the due proportion of nitrogenous food be not given, the ox will lose his muscular strength, and will generally fail. So with growing and fattening stock of every kind, the proportion of each of the kinds of food required by the animal must in practice be adjusted to the purpose of which it is fed, as theory indicates, or actual money loss will ensue to the feeder.

PRACTICAL VALUE OF SALINE AND OTHER INGREDIENTS OF MILK IN FEEDING THE GROWING CALF.

In the course of the preceding section I have incidentally remarked, that the substitution of molasses for milk lowered the proportion of nitrogenous food in the Dundee prison diet, and rendered it insufficient for the healthy maintenance of the prisoners. The reason of this appears in the composition of milk, already given in a previous chapter. The consideration of milk as a natural food supplies us with another beautiful practical illustration of our theoretical principles, to which I shall briefly advert; and I do so, not merely because of the light it throws upon the supply of nitrogen which a milk diet is fitted to yield, but because it so clearly illustrates another of the positions laid down in the preceding chapter, that the food must supply, in kind and quantity, all the saline and earthy substances contained in the body.

Milk is a true food. It contains sugar, casein, saline matter, and fat—a portion of each of those classes of substances on which the herbivorous races live in the most healthy manner. But the provision is very beautiful by which the young animal—the muscle and bones of which are rapidly growing—is supplied, not only with a larger proportion of nitrogenous food, but also of bone-earth, than would be necessary to maintain the healthy condition of a full-grown animal of equal size. The milk of the mother is the natural food from which its supplies are drawn. The sugar of the milk supplies the comparatively small quantity of carbon necessary for the respiration of the young animal. As it gets older, the calf or young lamb crops green food for itself, to supply an additional portion. The curd of the milk (*casein*) yields the materials of the growing muscles and of the organic part of the bones; while along with the curd, dissolved in the liquid milk, is the phosphate of lime, of which the earthy part of the bones is to be built up. A glance at the composition of milk will show how copious the supply of all these substances is,—how beautifully the composition of the mother's milk is adapted to the wants of her infant offspring. Cow's milk consists in 1000 parts by weight of about—

Butter,	- - - - - 27
Cheesy matter, (<i>casein</i>),	- - - - - 45
Milk-sugar,	- - - - - 36
Chloride of potassium, and a little common salt	- - - - - 1½
Phosphate, chiefly of lime,	- - - - - 24
Other saline substances,	- - - - - 6
Water.	- - - - - 882½
	1000

The quality of the milk, and consequently the proportions of the several constituents above men-

tioned, vary, as I have explained in the preceding chapter, with the breed of the cow—with the food on which it is supported—with the time that has elapsed since the period of calving—wish its age, its state of health, and with the warmth of the weather;* but in all cases this fluid contains the same substances, though in different quantities and proportions.

Milk of the quality above analysed contains, in every 10 gallons, $4\frac{1}{2}$ lbs. of casein, equal to the formation of 18 lbs. of ordinary muscle,—and $3\frac{1}{2}$ ounces of phosphate of lime, (bone-earth,) equal to the production of 7 ounces of dry bone. But from the casein have to be formed the skin, the hair, the horn, the hoof, &c., as well as the muscle; and in all these is contained also a minute quantity of the bone-earth. A portion of all the ingredients of the milk likewise passes off in the ordinary excretions, and yet every one knows how rapidly young animals thrive, when allowed to consume the whole of the milk which nature has provided as their most suitable nourishment.

* In warm weather the milk contains more butter, in cold cheese and sugar.

Johnston's Ag. Chemistry and Geology.

For the New England Farmer.

ICE HOUSES.

MESSRS. EDITORS:—Sirs,—Having been a subscriber to your valuable paper since its first start, I wish to inquire through you or your numerous contributors the best mode of constructing ice houses—such as will keep ice through the season. I have a good winter house, that will keep ice nicely, providing we don't have too many January thaws.

I wish to describe mine, and ask for the defects. It is inside about 8 feet square, and six feet high to the roof, and plastered inside with cement; it is situated about one-half out, the other under a building used as a provision or store room and milk room. The foundation is built of thick stone wall laid in mortar, about three feet high. Then brick two thicknesses outside, then a space of four or five inches, and one thickness bricks inside, the space is filled with sawdust or planing shavings. Thus you will see the wall is about 18 inches thick, the roof and under the building is also double and filled with sawdust. I built this three years ago. The first year I packed my ice in straw; it lasted till June, latter part; second year it lasted till the middle of July, with sawdust thrown over it. This year it failed the 20th inst. So you perceive my ice house is useless, or nearly so.

The first year it was evidently too close; it formed a dampness so that the water stood on the roof and wet the straw and dissolved the ice immediately. Last year I ventilated it, and remedied the fault in a measure, but the principle is not right yet, as the sequel shows. Now I wish through your paper the faults in my building may be pointed out, that I may correct them, or build one that will answer the purpose, as I esteem ice a great luxury these intensely hot days.

LEANDER B. HUNT.

East Douglass, July 26, 1854.

REMARKS.—It is often the fault that too much labor and expense are put upon the ice house.

Set a building 12 or 18 inches from the ground, with strong sills and sleepers; lay a double floor. Make the outside of the building tight, and line the inside from bottom to plate, and fill with shavings, tan, or sawdust. Then, in an interior house, in the centre, deposit the ice, well packed in shavings or other non-conductors. This interior building should also be lined, if only small quantities of ice are to be kept. Here, then, you have a walk, or passage, all round the ice, affording every convenience for storing or removing it. Much depends upon the amount to be preserved. Where large quantities are together, the inside building, or pen, may be dispensed with. The building should be firmly supported, but not underpinned—let the air have full sweep under it. We shall be glad of suggestions, on this topic, from our correspondents.

For the New England Farmer.

CHEMISTRY AND FARMING.

The remarks of Mr. JOHNSON, copied in your last number from the *Country Gentleman* on the analysis of soils, expresses the exact truth. We had a statement by a chemist, a member of the Lawrence scientific school a year or two since, that he had examined specimens from the rich Ohio bottoms, and that the soil did not differ in comparison from our N. E. soil. It was only finer. But the farmer sees corn grow on that, ten feet high, while on the low N. E. soil, it will hardly grow at all without manure. Enough of this will make it grow here. Now which shall the sensible man believe, the chemist or the corn? A very small per cent. of phosphoric acid in combination with a very little lime scattered through 300 cubic feet of earth will be found and taken up by the corn. The chemist might utterly fail to detect it. The vital power of the plant forms combinations that the chemist cannot imitate. The different states in which the elements may exist, and their powers upon each other, and the vital powers of the living organic action, are yet little known; but the plant knows it all. Practically, therefore, for the mass of farmers, if not for all, a conclave of cabbage beds, potatoes and corn stalks, can impart more valuable information, if we but learn their language, than all the *Savans* of Europe. We study German to read Liebig, why not some o'her language to read the cabbage? Mr. Cabbage Head will give him no jaw-breaking terms, but if he remembers what manure he put there, the plump head of the cabbage will be as full of information for him, when compared with its spindle-shanked, verdant-topped neighbor who happened to get no manure, as is the practical, good-sensed farmer compared with his dandy-theoretical neighbor farmer. Two heads are better than one, if one is a cabbage-head, and the two heads should be put together. The learned head of the man of science ready to give the theory, and the cabbage, potato or corn, just as ready to give the practice; and the farmer must add his own to both, if he would succeed. The plant will take what it wants from the soil, and the chemist can analyze that better than the soil itself. But without the name for each ele-

ment, the farmer can shortly tell what manure acts best on each soil, and for each plant. He needs the aid of the chemist though.

Chemists have tried to establish rules; they won't work. "General principles," as our venerable lecturer on Theory and Practice used to say, while his form was stretched up full five feet four, and his spectacles mounted up "where the hair ought to grow," "General principles are all you want, and you must apply them to your case, and give your remedies till you make the system respond." And he was right. Rules can have little place in medicine or farming. General principles are the things, and they must be applied to each soil and crop, and the manure and cultivation applied till the soil responds. A quick eye and a well-trained mind will enable one to do this.

I. H. NUTTING, M. D.

Orford, N. H., 1854.

BOTS.

In looking over an old number of the *Medical Register*, we noticed an article from the pen of a Mr. GREENE, of this State, on the nature and habits of this insect. Many of the remedies indicated, although they have become quite extensively popularized through the use and recommendations of empirical pretenders to veterinary skill, and have been generally regarded as both safe and efficacious, appear from the statement of Mr. Greene to be not invariably so. In some instances the bot, even when exposed to their most concentrated and intensified action, remains either wholly unaffected by them, or at most, only slightly injured.

Immersed in rum, they lived 36 hours.	
" decoction of tobacco, 11 hours.	
" strong elixir of vitriol, 3 hours, 18 minutes.	
" essential oil of mint, 2 hours 5 minutes.	
" volatile spirit, 56 minutes.	
" spirits of turpentine, 45 minutes.	

The following articles produced no effect.

Decoction of pink root.....	10 hours.
Fish oil.....	10 "
Linseed oil.....	10 "
Tincture of aloes.....	10 "
Brine.....	10 "
Solution of indigo.....	10 "
Elixir camphor.....	10 "

The assertion so confidently advanced by many, that mercury is certain destruction to the bot, Mr. Greene, by his experiments, has demonstrated to be wholly untrue. Of three of these insects, two of which were small, and one of mature size, immersed in corrosive sublimate, the first two only were destroyed. Six hours after immersion, the mature, or full-grown insect, was removed from the fluid without exhibiting even the slightest apparent diminution of its normal activity or sprightliness, and, to all appearance unharmed.

From the data furnished by Mr. Greene it appears extremely questionable, whether the application of any remedy, not sufficiently powerful to destroy the life of the horse, is capable of effecting the dislodgment of these insects, when they have once concentrated their attack. According to CLARK and YOUTT, whose investigations on

this subject are of great value, the larvæ attach themselves to the stomach by the tentacula of the head, and often puncture or perforate its coats. Horses, however, have died, as was supposed, from bots, in which the coats of this organ have, upon examination, been found perfectly whole, and in an apparently healthy state. When attacked by bots, perhaps the most effectual remedy that can be applied, is a quart of warm sweetened milk, with, immediately after, a powerful dose of physic. The milk will cause them to relax their hold upon the stomach to partake of the liquid, of which they are instinctively fond, and the effect of the physic will tend speedily and effectually to dislodge them. This remedy has proved effectual.

The eggs from which bots are hatched are attached to the fore leg, and taken from thence into the mouth of the animal and swallowed. Now as prevention is better than cure, difficulties occasioned by bots may, in most cases, be prevented, by scraping the eggs from the hair to which they are attached, with a pocket knife. It is easily and quickly done, and in no way dangerous; and where this practice is carefully observed there will be few cases of suffering from bots.

Dr. DADD, in his "Modern Horse Doctor," recommends the following compound for the expulsion of bots.

"Powdered male fern.....	2 ounces.
" poplar bark.....	4 "
White mustard seed.....	2 "
Common salt.....	6 "
Sulphur.....	3 "
Powdered aloes.....	1 ounce.

Mix, divide into 18 powders, and give one, night and morning, in the food. The animal should have a daily allowance of green food if the season permits."

For the New England Farmer.

FARMERS ON POOR LANDS.

FRIEND BROWN:—I was amused with Dr. BROWN's article in the last number of the *Farmer* on the "advantages of living on poor land." While I regard his views as correct and ingenious, it struck me that there must be very many people in New England the most advantageously situated of any in the universe; and why not? I verily believe it to be the fact.

And again, if the asperous soil of these elder members of the confederation has a direct tendency to burnish the morals of the people, then virtue should shine with a lustre, the reflection of which would extend to the very confines of the continent; and this even may be measurably the case, though the fear is that if the curtains were uplifted, that veils the hidden things of darkness, the vision would be fearful, and virtue would weep bitter tears of lamentation. I believe it to be more creditable to a man to live on poor land and cultivate a rugged soil and increase its production while he causes it to increase in permanent value, than to locate on a more rich and favored soil, and by an indolent and slovenly style of husbandry deteriorate and effectually run out his once rich and virgin soil.

I, too, have heard of farmers at the West getting a living, and perhaps a surplus, by two or three days' labor in a week; in fact, I have heard that some of them do not labor more than that amount of time; and in conjunction with the doctor, it might form an interesting subject for moralists to inquire how a major portion of their time is occupied. As to the industry of people from the east acting as leaven among the easy farmers of the West, if I am rightly informed, the leaven generally operates the other way, and nearly the whole become leavened with laziness.

7th mo., 1854.

I. S.

PROGRESS AND IMPROVEMENT.

The *Agricultural Press* of America is becoming powerful and popular, and undoubtedly accomplishing a vast amount of good—directly benefiting the people and the country. Its weekly, semi-monthly, and monthly issues, are extensively circulated among the most enterprising and intelligent farmers in all cultivated portions of the Union. Nearly every State and Territory has at least one paper primarily devoted to the Agricultural interest, while from New York, Massachusetts, and Ohio, emanate several agricultural and horticultural journals which circulate generally—a number of them having what may be termed a national sphere and influence, their readers and correspondents extending from Maine to Minnesota, and from Canada to California.

The utility of judiciously conducted periodicals devoted to the promotion of rural interests, is no longer doubted; for the great mass of farmers who formerly ridiculed the idea of "book-farming," so called, have either become convinced of their folly, or sleep with those whose practices were their chief guide—their fathers. Throughout the land, the young and middle aged, and even the venerable men now on the stage of action, very generally concede the necessity and value of the *Agricultural Press*, and cordially lend it substantial support and warm encouragement. Many a farmer who, only a few years since, could not be induced to subscribe for a periodical devoted to his own business, now takes, pays for, and reads from two to ten agricultural papers, and considers the expense a good investment. But the best and most numerous supporters and advocates of rural literature, are the young men—those who have commenced farming for themselves within five or ten years—and it is to this class that, more than any or all others, the *Agricultural Press* is indebted for its elevated position, and present and prospective prosperity. But we designed to speak of the character and influence of Agricultural Journalism, rather than of its supporters. And in these respects, we conceive honor to be due our contemporaries all over the land, for, as a general rule, our journals are able, practical, and high toned. As a whole, though comparatively young in years, the *Agricultural Press* of America will suffer nothing by comparison with the organs of any other interest or profession—religious, political, literary or scientific. Indeed, we do not believe there is an agricultural paper published in this country, that is not worth far more than its subscription price to any discriminating farmer—and rarely one which would not be both safe and valuable as a family instructor on many important

subjects. Their practical and useful character is especially worthy of consideration, and affords a marked contrast with papers devoted principally to political topics and ephemeral reading, and instead of ranking next to political or literary journals, they ought (on the principle that the useful should be preferred to the ornamental, and business precede pleasure,) to take precedence in the estimation of every husbandman.

The mission of the *Agricultural Journal* is to inform, advise and instruct the farmer and his family, on essentials of every-day concernment, including questions and practices, the elucidation and discussion of which require experience, observation and good judgment. It should be the medium of communication between the best and most experienced cultivators, observers and investigators, and the great mass of agriculturists. Earnestly aiming to promote the best interests of community, it should ever avoid and expose error and deception in every form. A desire to benefit their fellow men—to enhance improvement, and enrich the people and the country—should be, as we trust it generally is, the paramount object of agricultural editors. With such a purpose, and an energy and zeal commensurate to the work, any and every man connected with the rural Press of the country, can exercise a lasting influence upon the welfare of community. The teachings of such men as BUEL, FESSENDEN, SKINNER, GAYLORD, DOWNING, and others, did not cease with their departure from earth—their "good deeds live after them," and will continue to benefit mankind for centuries. May their surviving contemporaries and successors prove equally useful to their fellow men and the country—each striving to excel in promoting the good cause of rural and mental progress and improvement.—*Rural New-Yorker*.

A REMEDY FOR SCARLET FEVER.

The following cure for this malignant disease is given in the *Delaware Republican*, by a physician:—

MESSES. EDITORS:—You will confer a favor on some of your readers, at least, by publishing this receipt for Scarlet Fever in all its stages, and which will cure nineteen cases out of twenty, if strictly attended to; this treatment, although apparently simple, you will find a sovereign remedy, and will save many of your little ones from a premature grave, which is almost sure to follow the use of calomel, which universally tends to increase the disease instead of curing it. Treatment as follows:—Give a mild cathartic, such as castor oil or some gentle pills, every two or three days, and when there is fever present, sponge the body with weak ley, and give some simple tea to promote a perspiration, such as catnip, sage, balm, &c.; and for the putrid symptoms give good brewer's yeast, mixed with cold water; one table-spoonful of the former to two table-spoonfuls of the latter, for children ten or twelve years old, and younger ones according to age; to be repeated from three to five times a day; and use as a gargle yeast and cream or milk, equal parts, sweetened with honey, and gargle the throat and mouth frequently with it; and if the throat is much swollen, poultice with yeast and pulverized slippery elm; continue the above treatment until

well. I know by many years' experience, that this is the best and most effectual way to cure the scarlet fever.

DR. WM. FIELDS.

Wilmington, Del., Dec. 12, 1851.

THE KANSAS EMIGRANT.

BY J. G. WHITTIER.

We cross the prairie as of old
The pilgrims crossed the sea,
To make the West, as they the East,
The homestead of the free.

We go to rear a wall of men
On Freedom's Southern line,
And plant beside the cotton tree
The rugged Northern pine!

We're flowing from our native hills
As our free rivers flow;
The blessing of our mother-land
Is on us as we go.

We go to plant her common schools
On distant prairie swells,
And give the Sabbaths of the wild
The music of her bells.

Up-bearing, like the Ark of old,
The Bible in our van,
We go to test the truth of God
Against the fraud of man.

No pause, nor rest, save where the streams
That feed the Kansas run,
Save where our Pilgrim gonfalon
Shall float the setting sun!

We'll sweep the prairie as of old
Our fathers swept the sea,
And make the West, as they the East,
The homestead of the free!

For the New England Farmer.

CHESS OR CHEAT.

MR. EDITOR:—A word with you about chess, or as we Suckers call it, cheat. The scientific hold that chess grows from pure chess seed, and is produced by nothing else; while the mass of farmers, at least in the West, are ready to attest that the growing of the intruder does not depend upon sprouting the pure chess grain or kernel; but that the injured wheat-roots will shoot up a chess stalk. Some believe that herd's grass is liable to such transmutations. Though my faith is small in such violations of nature's laws, I am compelled to say, I have found many facts connected with chess which puzzled me to account for upon any other suggestion.

A neighbor, Mr. TUTTLE, broke up a field of the virgin prairie in June, 1850, which, till then, had probably grown rough except wild grass. Last September he sowed wheat on the land, with carefully selected and well cleaned seed. Early the past spring, a flock of 400 sheep broke into the field of green wheat, and made a circuit around a part of the field. In their course they swept the wheat clean to the ground, and now the course of that flock of sheep can be traced by a most luxuriant growth of chess, while it is difficult to find a single head in any other part of the field. In April, 1853, I sowed a field of 14 acres, (which in 1848 produced a fair crop of wheat, with so little chess, if any, that it was not noticed and had since produced corn and no chess that was discovered,) with oats, clover and timothy. Harvested a good crop of oats; in the fall the tim-

othy and clover made a fair show, but now there is an exuberant growth of clover and chess, about half and half, while the timothy is hard to find. Next week I intend to put M'Cormick's reaper into it, and test its value for hay. Some of my neighbors tell me to be of good cheer, that it will all be right next season, that in place of chess, I will have a crop of timothy. Will some one inform me how to avoid a similar result, as I wish to sow another field next spring.

H. W. MERRIAM.

Little Town, Tazewell Co., Ill., June 8, 1854.

THE LAMPAS.

A correspondent of the New York *Spirit of the Times* inquires as to burning for the Lampas, and whether that is the only cure for it. With the hope that we may perhaps save one horse from the unnecessary and terrible torture of the burning iron, we undertake to reply.

Burning for the Lampas is as good and as humane a remedy, as is suffocation between two feather beds for the hydrophobia;—both have been practised by the ignorant, and both are effectual. The horse, to be sure, survives the infliction, while the feather-bed patient is bound to die. But both of these barbarous remedies (!) have long been discarded by civilized and intelligent men.

We have occasionally had cases of this complaint in our stable; and have always attributed it to over-feeding. But in no single case, however bad, within our knowledge and experience as an amateur V. S., has it resisted a course of bran mash, continued for a day or two; with the addition, in one or two instances, of a purgative of salts or aloes. (The first thought of our farm hands always was,—to take the animal to the blacksmith's to be burned.)

Youatt says, "The bars occasionally swell, and rise to a level with, and even beyond the edge of, the teeth. They are very sore, and the horse feeds badly on account of the pain he suffers, from the pressure of the food on them. This is called the Lampas. It may arise from inflammation of the gums, propagated to the bars, when the horse is shedding his teeth—and young horses are more subject to it than others—or from some slight febrile tendency in the constitution generally; as when a young horse has lately been taken up from grass; and has been over-fed or not sufficiently exercised. At times, it appears in aged horses; for the progress of growth in the teeth of the horse is continued during the whole life of the animal.

In a majority of cases, the swelling will soon subside without medical treatment, or a few mashes and gentle alteratives will relieve the animal. A few slight incisions across the bars with a lancet, or penknife, will relieve the inflammation and cause the swelling to subside; indeed this scarification of the bars in Lampas will seldom do harm, although it is far from being so necessary as is supposed. The brutal custom of the farrier, who scars and burns down the bars with a red-hot iron, is most objectionable. It is torturing the horse to no purpose, and rendering that part callous, on the delicate sensibility of which all the pleasure and safety of riding and driving depend. It may be prudent, in case of Lampas, to examine the grinders and more particularly, the tusks, in order to ascertain whether either of them is making

its way through the gum. If it is so, two incisions across each other should be made on the tooth, and the horse will experience immediate relief."

In lancing the gum, for a coming tooth, it is much better to nick the gum at the side, rather than upon the edge above the advancing tooth. This is practised with young children, by most physicians. Any one troubled with a tender and swollen instep can comprehend the rationale of this. If he cuts his boot upon the point of pressure, he finds the foot puffing up more and more; but when he makes a few incisions on either side of the boot, near the sole, the pressure ceases and his instep is at once relieved.—*Practical Farmer.*

PASTURE LANDS—DIFFERENT GRASSES.

The months of August and September usually offer opportunities to the farmer to make substantial improvements in his fences, drains, meadows, pastures, clearing fields of stones and brush, and supplying water for all the purposes for which it is desired. But there is nothing among them all that enhances the value of the farm more than a good pasture.

Every farmer should be a stock-raiser, so far, at least, as the circumstances under which he exists will admit, as it is only by this means that he can sustain the fertility of his fields, and realize remunerating crops from his arable lands through a succession of years. By consuming the hay and grain of the homestead on the premises, a large quantity of valuable manure will be accumulated, whereas the selling off the products, and their consumption remote from the premises—unless their place be supplied by extraneous matters, will tend directly to impoverish the fields, and render the labors of the husbandman unprofitable and irksome in the extreme.

In the management of pasture grounds great care should be taken to keep down bushes, weeds, and indeed every species of spurious vegetation by which lands devoted to this purpose are so frequently infested and overrun.

The fern and the brake, as well as many perennial plants, find a ready footing and ample aliment in most pasture lands, and should be exterminated at once.

By permitting them to vegetate and spread unmolested, not only are the vegetable resources of the soil essentially diminished, but toleration affords time for a more general dissemination of the pests, and renders the labor of eradication far more onerous and perplexing when it is attempted. Fern may be easily destroyed in the spring when the surface of the soil has just commenced thawing, by means of a heavy hoe formed in the shape of an adze, with a wide sharp bit, and substantial helve. With an instrument of this description an industrious man will go over a large area in a short time, unless the bushes be very dense, and perform the work of extirpation in a

manner at once thorough and effectual. Other bushes of a similar description may also be eradicated in the same way.

In stocking down pasture lands, there should be a mixture of seeds, and a most liberal quantity; it is poor policy to sow but one sort. By having a variety of grasses, we secure a much greater amount of fodder than where we sow but one kind. Where sheep and cows, oxen and horses are permitted to run together, this method will be found especially beneficial. We are often surprised by the neglect manifested by some stock-raisers in the management of their pasture lands. No section of the farm should receive more systematic and careful attention. If the ground is low and wet, it should be drained, and the native grasses which are commonly found vegetating with great luxuriance in such soils, and which are nearly worthless, supplanted by more nutritious and valuable kinds.

The improvement of low ground pastures is a matter which has already awakened the attention of some of our farmers, and will in time produce valuable results.

On this subject we find some excellent practical remarks in an Address by A. D. DICKINSON, before the Tioga Co. (Pa.) Ag. Society.

"The red clover is the only kind of grass the wheat grower should cultivate, and that is the very kind the grazier does not want except to sow mixed with his blue grass, timothy and red top. All these are slow to start and mature while the clover starts quick and protects not only the soil, but the other grasses until they mature and spread, and run out the clover. But one word on the importance of having all the different kinds of good grasses mixed which grow well on your soil. We all know when any kind is green and fresh, cattle do much better than when ripe and dried up. The kinds I have named come forward in order. Timothy is first and blue grass last to mature, and by having these mixtures you have fresh pasture through the season. One word on the subject of preparing your field for sowing the grass seed. Though ordinarily you have not much trouble in this respect, in this immediate vicinity, there are occasionally some fields or parts of fields which do not catch. The remedy for all this is, on your dry land where your seed would not be so likely to grow, have your soil well prepared early in the spring, and sow it with spring rye. On the first dragging let a man follow the drag with four quarts to the acre, of each kind of seed, timothy, red clover, and red top. Then cross sow it with two quarts each, of white clover and blue grass, rolled in plaster; then drag it all in well. Then put on a good heavy roller; and a failure will never happen if the seed is good. Sow one bushel of plaster to the acre when the rye is a few inches high. This course is only necessary in extreme cases. The reason that rye is better to seed after than any other crops that I have tried is, it grows tall and without leaves, at the bottom, while oats and other spring crops grow thick at the bottom and smother the young grass."

SIGNS OF FOUL WEATHER.

BY THE FAMOUS DR. JENNER.

The hollow winds begin to blow,
The clouds look black, the grass is low;
The soot falls down, the spaniels sleep,
And spiders from their cobwebs peep.
Last night the sun went pale to bed,
The moon in haies hid her head;
The boding shepherd heaves a sigh,
For see, a rainbow spans the sky.
The walls are damp, the ditches small,
Closed is the pink-eyed pimpernell.
Hark! how the chairs and tables crack,
Old Betty's joints are on the rack:
Her corns with shooting pains torment her,
And to her bed untimely sent her.
Loud quack the ducks, the sea-fowl cry,
The distant hills are looking nigh.
How restless are the sporting swine!
The busy flies disturb the kine.
Low o'er the grass the swallow wings,
The cricket too, how sharp he sings!
Puss on the hearth, with velvet paws,
Sits wiping o'er her whiskered jaws.
The smoke from chimneys right ascends;
Then spreading, back to earth it bends.
The wind unsteady veers around,
Or settling in the south is found.
Through the clear stream the fishes rise,
And nimbly catch the incautious flies.
The glow-worms numerous, clear, and bright,
Illumed the dewy dell last night.
At dusk the squalid toad was seen,
Like quadrupeds, stalk o'er the green.
The whirling wind the dust obeys,
And in the rapid eddy plays.
The frog has changed his yellow vest,
And in a russet coat is dressed.
The sky is green, the air is still,
The mellow blackbird's voice is shrill.
The dog, so altered in his taste,
Quits mutton bones, on grass to feast.
Behold the rooks, how odd their flight,
They imitate the gliding kite,
And seem precipitate to fall,
As if they felt the piercing ball.
The tender colts on back do lie,
Nor heed the traveller passing by.
In fiery red the sun doth rise,
Then wade through clouds to mount the skies.
'Twill surely rain, I see 't with sorrow,
Our jaunt must be put off to-morrow.

For the New England Farmer.

THE CURRANT.

There are many distinct species as well as numerous varieties of the currant under cultivation; some produce fruit of excellent quality, while others are merely ornamental, and esteemed for the beauty of their foliage and flowers only.—The Missouri, a species with fragrant yellow flowers, is among the most beautiful shrubs.—There are other kinds, of various colors, found in extensive gardens and nurseries, which are worthy of a place in the least collection of shrubbery. Of those which are cultivated for their fruit, there are many kinds, such as the common red and white, and the Dutch of the same color, with a multitude of other species, and their varieties, from which a person may select to suit his fancy.

The black currant is medicinal. A syrup is prepared from the fruit which is useful in affections of the throat and other diseases. Wine, of excellent quality, is made of the juice of the com-

mon red, without the addition of alcohol, which is less detrimental than much of the imported wine, and is employed as a restorative in cases of debility. We have, in this immediate vicinity, two native species of the currant, the wild black and the mountain; the last species produces a large red fruit which is not eatable; it is found, as its name indicates, on mountains; the black kind is also met with most frequently on elevated land. The existence of these species, in this region, proves, most conclusively, that the soil and climate are adapted to the growth of this class of fruit, which should encourage us to engage in its cultivation with an assurance of success. Room may be found in a small garden to grow currants for the supply of a family, and they will be found very useful and palatable in various methods of cookery, as well as in the raw state; their cultivation is simple, and they will produce well with ordinary care, and profusely, with high culture and judicious training.

Leominster. 1854.

O. V. HILLS.

THE CURRANT CROP IN ZANTE.

Our Zante correspondent, under date of June 21, says:—"The disease of the currant vine has already made great progress. Many think that it will be more severe this year than in previous years, but I believe that this will not be any worse than the last one. As it is, however, it is bad enough. The misery attending such a state of things is of course on the increase.—Our rich land-owners are doing all they can to economize. They deny themselves every comfort, and even what are considered indispensable necessities. They are now selling their equipages as fast as they can get buyers; while the poor people who had, before this calamity, fared as poorly as they well could, have had lately to give up regular meals and feed upon the coarsest materials, whenever and wherever they were to be found. These poor people are now suffering extremely. Our condition, indeed, can scarcely be worse; and yet to a worse state it must come, particularly in the coming winter. What is to become of us I cannot see, unless we turn cannibals and feed upon each other.

A farmer here pretends to have discovered a remedy for this currant disease, and asks the Ionian government to give him \$5000 in case his discovery proves a remedy. This is, however, very doubtful, to say the least. This pretended discovery consists in dipping each separate bunch of currants in a mixture of clay and cow's dung moistened with water, and so great is the anxiety of the people here, that they have seized even upon such a forlorn hope as this. Thousands have actually set to work in good earnest to give the experiment a fair trial.—*Boston Traveller.*

REMARKS.—This currant disease, the *American Agriculturist* says, shows the folly—nay, absolute wickedness of people depending upon a single crop for their support. The vine-growers in some parts of Europe are now suffering nearly as much as the currant-growers, on account of the vine disease.—Let them reflect on the horrors of the late Irish famine, in consequence of the peasantry placing their whole dependence on the potato crop. Our

southern planters formerly suffered somewhat in purse, though little in body, on account of devoting too much of their attention to one sole crop—cotton. Now, many have learned better, and raise their own corn and make their own bacon, and occasionally produce other things which enter into the consumption of their families.

HORTICULTURAL OPERATIONS FOR AUGUST.

Nurserymen will now be busy about budding. In large nurseries, and where competent budders are scarce, it is necessary to commence earlier than in smaller nurseries, or where plenty of help can be had when wanted.

PLUM STOCKS.—The curculio has been so destructive to the plums, that for several years the demand for plum seeds of the finer varieties has been greater than the supply, consequently, many have raised stocks from seeds of the wild plum, or have imported their stocks from Europe.

The seeds of the free growing varieties are suitable for stock, but the wild plum, if used, should be budded or engrafted close to the ground, for most varieties grow vigorously upon it, and will soon outgrow the stock. Plum stocks are the first to be budded, for in dry situations they will stop growing by the last of July or first of August.

PEAR STOCKS.—In some situations pear stocks continue to grow until the middle of August or first of September, then cease growing for the season. In such situations they should be budded early in August; but in most of the western States they make a second growth; where this is the case, if they are budded early, the buds often start in the autumn and make a growth of from one to six inches, but this wood does not have time to mature before the frosts of winter destroy it. Nurserymen in new locations will notice these facts, and govern themselves accordingly, with regard to the time of budding.

CHERRIES.—The black Mazzard is the best variety of cherry for stocks. The seeds should be cleansed from the pulp as soon as ripe, and planted immediately, or put away in sand and kept till spring; but it is better to plant them in the fall, for they start early in the spring, and if not planted until they have commenced growing, many of them will be lost. The middle of August is early enough to commence budding cherries.

PEAR ON QUINCE STOCKS.—With us the quince stocks continue to grow until late in the autumn, but we generally commence budding them simultaneously, or immediately after we have finished budding the pear stocks.

APPLE STOCKS.—The budding may be commenced upon apple stocks by the middle of August, and in ordinary seasons continued until the middle of September.

PEACH STOCKS.—These can be left till the first of September, but should be completed in season to have the buds well established before the plants stop growing.

Roses can be budded now.

Examine the different varieties of fruit as your trees come into bearing, to see if they are correct, and what are their merits in your locality.

STRAWBERRIES.—Where it is desirable to make new strawberry beds, or to propagate plants for sale, it will be necessary, the beginning of the month, to put the old beds, between the rows, in good condition, that the runners may form strong roots preparatory to being removed to the new beds the last of August or first of September.

BULBS.—Tulips, Hyacinths, Narcissus, Crocus, &c., can now be taken up and separated and laid aside until the middle of September, when they should be again planted.

DAHLIAS.—These will now be coming into flower; see that they are well fastened to the stakes in such a manner as to keep them from being blown over, or looking too stiff and unsightly.—*Farmer's Com.*

BATHING.

A daily external application of cold water, has a reviving and invigorating effect but little understood by those who never practiced it. Every class of persons, and especially those who work on the farm through the hot and dusty summer months, should practice daily bathing. The almost continued perspiration causes every particle of dust which touches the body to adhere, and in a short time the pores are obstructed, and the skin covered with dirt. A thorough washing off in cold or tepid water each night, before going to bed, besides keeping the pores open and thus tending to the promotion of health, will dispel those feelings of debility and lassitude so common with many during the sultry months of summer, and infuse a new life into the frame. Some prefer the morning, there is no doubt but a morning bath is highly invigorating, but we think a thorough cleansing of the skin before going to bed, and a change of clean dry clothes to sleep in, of great importance.

Children should be accustomed to frequent bathing from their infancy. It doubtless adds greatly to their health and enjoyment, to say nothing of cleanliness. They will soon learn to consider it a great enjoyment, and perform the operation themselves.

Sir Ashby Cooper was a great believer in the efficacy of bathing. Hear what he say to the ladies about it:

Immediately on retiring from bed, and having all previously ready, take off your night dress, then take up from your earthen-pan of two gallons of water, a towel, quite wet, but not dripping, begin at your head, rubbing hair and face and neck and ears well; then wrap yourself behind and before, from neck to chest, your arms and every portion of your body. Remand your towel into the pan, charge it afresh with water, and repeat once all I have mentioned, except the head, unless that be in a heated state, when you may do so, and with great advantage. Three minutes will now have elapsed. Throw your towel into the pan, and then proceed with two coarse long towels to scrub your head and face and body, when four minutes will have you in a glow; then wash and hard rub your feet, brush your hair and complete your toilette, and trust me that this will give new zest to your existence. A mile of walking may be added with advantage.—*Indiana Farmer.*

THE WAR AND THE LINEN TRADE.

Out of a total import of foreign flax, averaging 80,000 tons per annum, Russia furnishes the United Kingdom with 60,000 tons, or two-thirds of the entire quantity; and of the 28,000 tons imported annually into France, about 13,000, or nearly one-half, is derived from the same source. It is not surprising, therefore, that the curtailment and prospective cessation of imports from Russia has materially checked the onward course of the linen trade of the allied nations. Dundee is certainly the most to be pitied, for its manufacture is chiefly of those coarse flaxen fabrics whose low prices will not admit of the substitution of a superior quality of fibre. Of 31,000 tons of flax imported into Dundee in 1854, 25,000 came from Russia, while of 8,400 tons landed in Belfast, but 4,100 were the produce of the czar's dominions; and, further, Belfast had 40,000 tons of Irish flax to select from, of qualities peculiarly suited to the description of fabrics which form the bulk of the Irish manufacture, while Dundee, on the contrary, could avail itself of but a small portion of our crop, the mass of it being too high price, for the kind of goods there made.

Looking beyond the present crisis, our attention is arrested by the facts that the linen manufacture has been outstripping the production of flax, and that spindles and looms have been increasing in a more rapid ratio than fields of this valuable plant. If we refer to the statistics of British and Irish exports, we find that, in 1843, there were shipped from the United Kingdom, in round numbers, 91,000,000 yards of linen, and that the export of 1853 reached nearly 130,000,000 yards; the total value of all kinds of linen and yarn exported in the former year being £3,702,052, and in the latter, £5,910,355. The increase during this decennial period was, therefore, in quantity about 43 per cent., and in value nearly 60 per cent. Of the raw material, the import of 1843 was 78,000 tons, and in 1853, 94,000 tons, or an increase of less than 31 per cent. It is true that the production of flax in Ireland had more than doubled in the interim; but this increase has tended rather to the advantage of certain departments of the British and Irish manufacture, than to that of the trade as a whole.

In fact, what is not merely, under present circumstances, urgently required, but which has for some time been greatly wanted, is a liberal supply of coarse flax. Although other fibrous materials have been largely introduced of late years, and spun upon flax machinery—such as jute, which is now consumed in Dundee to the extent of 16,000 tons annually—yet these, instead of taking the place of coarse flax, have rather opened out new means of consumption, just as the introduction of alpaca has originated a separate branch of trade, without affecting the use of sheep's wool. So that the Dundee manufacturers are as anxiously looking for new sources of supply as the Manchester cotton spinners have lately been doing; and as a curious continuation of the parallel, both point to the same country—our great possession in the East Indies.

It is known that hot climates are not capable of yielding flax fibers of fine quality, as is instanced in the case of Egypt, whose flax is the lowest priced that appears in the British markets. On

the other hand, the heat of the sun in these regions is peculiarly favorable to the production of seed.

Flax is already grown in India to considerable extent, but solely for the seed, of which about 100,000 quarters, value £300,000, are shipped annually to the United Kingdom, while the fiber, which would at least be worth half a million sterling, is converted to no use whatever. Surely, with the patent systems of steeping, and the improved method of scutching, lately introduced in Ireland, this valuable product might be brought to a marketable state. In other British colonies—such as those of North America and Australia—the high rate of labor is a serious obstacle to the preparation of flax; but in India it is far cheaper than in Ireland, and therefore no difficulty exists, except the insufficient means of transport from the interior. But the immense seaboard of the peninsula of Hindostan offers an abundant area for the production of flax, which could be readily shipped thence to Europe. We have shown that this question is of more vital consequence to Dundee than to Belfast; but still as we import 4,000 tons of coarse flax every year, it is a matter of some moment to us also, while it would in no way interfere with the home-grown article, which is of a quality much superior to any India could furnish. We are glad to observe, therefore, that our Chamber of Commerce has followed the example of Dundee, and is about to forward a memorial to Government, pointing out the importance, both to the British manufacturer and to the Hindoo ryot, of developing this latent source of profit.

Turning from this topic, we are naturally attracted by another, which the Russian difficulty has also suggested. At the late meeting of the Royal Flax Society, reference was made to the possibility, if not the great probability, of an insufficient supply of foreign flax seed for next year's sowing in Ireland. A greater calamity could scarcely occur to our staple manufacture than a sudden decrease in the area of flax cultivation at home. It is the very foundation of its prosperity, and the trade has increased *pari passu* with the extent of home production of its material. On the other hand, the Ulster farmer would view with dismay an eventuality which would suddenly deprive him of a certain source of profit. Fortunately, if our farmers have sense and foresight, they possess an easy and simple means of providing against such a serious chance. They have nothing more to do than to save as much of the seed of the growing crop as will furnish them with the quantity they require for next spring. And even if by that period the war be terminated, and abundance of Riga flaxseed be available, they will find a ready market at the oil mills for what they have saved. It is of importance also for them to consider whether it may not be advisable to save all the seed of this year's crop by rippling. The same circumstances which have caused a scarcity and dearness of flax fibre have produced a scarcity and dearness of flaxseed. Russia furnishes by far the largest proportion of what is converted, in the oil mills of the United Kingdom, into linseed oil and cake, both of which are so widely consumed. Crushing flaxseed is now 50 per cent. dearer than it was in the summer of last year; and if Irish farmers could not be tempted in former times to make an additional profit of £3 or £4 by saving the seed, perhaps they may

now think better of it when they can make £5 to £6 per acre by so doing.

It is certainly a curious contrast which is presented by the two points we have been discussing. On one side, British India is exporting £300,000 worth of flaxseed, and throwing away £500,000 of fibre; on the other, Ireland is raising to the value of the 2,000,000 of flax fibre, and rotting in the steep-pools £500,000 worth of seed! It is Russia alone that has been benefiting by the ignorance of the Hindoo ryot and the prejudices and carelessness of the Irish farmer. No particle of the valuable plant is allowed by her nobles to waste. She sells us to the value of £3,000,000 of fibre, and £700,000 of seed each year, and does not even take our manufactures in return. The Hindoo burns the fibre, and the Ulsterman rots the seed, which, turned into money, would buy our manufactured goods, and largely help to free us from reliance on a State whose political system must frequently lead to a crisis like the present, and whose commercial policy must ever deprive us of half the benefits of international trade.

—*Belfast (England) Mercury.*

For the New England Farmer.

WINTER WHEAT.

MR. EDITOR:—The farmers of New England cannot but be gratified—particularly the readers of your paper—that you are an advocate for growing wheat.

Your two last issues contain wholesome and timely advice to farmers. The admonitions of the past year will long be remembered, as connected with the price of a barrel of flour. The pockets of those whose bounden duty it is to produce the barrel of flour, in many instances, has been drained to their last pocket-piece. Is there any other way to restore this spent capital, than to move at once under your advice? If our "ancestors crowned their wheat-sheaves with flowers, and sung and danced,"—let us of the present day, weave a garland of flowers for the sheaves, and erect a triumphal arch bearing the inscription,—“Our primitive farmers were wheat growers; we will emulate their example in this age of improvement.” Finally, your statistics of wheat growing in the Old World, are of much interest; we hope they will not escape the eye of our agriculturists. Cultivation has brought up the wheat crops in England and Ireland; it is but a few years since, that they did not average a larger crop than our Western States, which now altogether do not produce in the aggregate, fifteen bushels to the acre for a series of years. New England would not compound at this rate. There is any quantity of land in New England that will produce as much wheat as in Old England, with the same appliances and mode of cultivation. A plenty of manure—ashes, bone-dust, (as to lime, not as a fertilizer but as a moistener, when under the surface, it may have its fitting effect,) and you are pretty sure of a crop.

SAMUEL PROTHINGHAM, JR., Esq., of Milton Hill, raised an immense crop of winter wheat. He used freely pig manure turned under greensward. He lost a portion of it from its overgrown weight and succulence, it being bent down in a shower and was too heavy to rise again. I think his yield was fifty bushels to the acre.

My own experience—so often told—and perhaps, so little heeded, I will once more venture to mention. My first year's experience was to plow an old piece of mowing land, 1½ acres. I sowed three bushels of wheat and harrowed in with it six casks of slaked lime. It yielded forty-seven bushels of wheat. I used no manure, it being simply an experiment. I continued to raise wheat six years; the fourth year it mildewed; my average yield for the whole time was twenty-five bushels to the acre. I doubted the necessity of using lime, and sowed spent ashes on the grain early in spring. Yet I would not oppose the use of lime.

My soil was what may be termed a good grass land, clay substratum; wet land will not mature wheat, neither will it winter rye. Dry, descending lands are better for this crop. A pasture, an old mowing field, or a clover crop plowed in, and all the manure you can turn in is all the better; you may lay down to grass at wheat sowing.

During the present season it has occurred to me that “winter-kill” is the great object to guard against. My friend TABER, of Vassalboro', has written me, that this is the discouraging feature in Maine. We know that many farmers are of opinion that if the wheat is sown any time before “snow flies,” it is early enough. In October, perhaps, with land cold, no manure, so clayey, that the harrow hardly makes an impression, the grain is scarcely up; the ground closes, and there is hardly a show of blade or root; spring opens, the ground thaws and freezes alternately, and the little fuzzy grain is all thrown out a perfectly dead substance. Is there not too much of this kind of farming among our Eastern friends? Not so with my worthy friend at Vassalboro'. He takes a high rank.

But “winter-kill” is to be guarded against. I have been trying experiments in my garden; to wit: have planted wheat, (Spring and Winter varieties) 1, 2, 3, 4, 5 and 6 inches deep, exact measure; it may astonish the reader to learn, that it has come up at a depth of six inches, in a light, rich soil. I planted a single berry in a place; the Winter variety at one inch, had seven stalks to the kernel; 2, 3, and 4 inches, six stalks each to the kernel; 5 and 6, three stalks each to the kernel. So that deep planting would require double the seed and would not be safe to adopt.

To test the experiment was my object, and I have planted at three several times; at one planting, it did not come up at six inches.

Now to avoid “winter-kill,” sow early in September, from 1st to 10th; plow in 3 inches deep, if mellow soil 4 inches. This gives depth of root, and an advanced blade (which thawing or freezing will not throw out) and amounts to a large gain in early maturing the crop for the next season. Would not this be a fair conclusion?

The early fall growth is of the greatest importance. The horse-plow cannot be used for a better purpose, even if the farmer is in a hurry and thinks it is time lost.

The Michigan or double eagle plow, will so leave the sod furrow as to make it easy to cover three inches deep. A loaded cultivator might be sufficient.

Always plow deep; vegetable roots strike deep.

Many of your farmers have raised wheat in

Massachusetts this year; would they not subserve the public good by publishing their doings? Would it not induce many to "go and do likewise."

The time for sowing is at hand, and he that would avail himself, must be "up and doing." I would recommend to sow two bushels to the acre on lightish soil, and two and a half bushels on heavier soil.

Yours respectfully,
Brooklyn, N. Y., Aug. 7th.

H. POOR.

REMARKS.—On land in good condition we have never used more than five pecks of seed; six pecks we should consider liberal seeding on a well-manured clay loam. It will be well for the cultivator to make experiments with different quantities of seed, say at the rate of 5, 6, 7 and 8 pecks.

SUBURBAN GARDENS.

The editor of the *Practical Farmer* has been looking into some of the fine gardens in the vicinity of Boston, and among others, describes that of Mr. JOSEPH BRECK, the well-known Seedman and Florist. What he says of Mr. Breck's "Book of Flowers," is no more than the work justly merits. There is no other work of that description which we think would so fully meet the wants of our people who cultivate flowers for home use, and as pleasant objects about the house. We commend it to all, whether amateurs or not.

MR. JOSEPH BRECK'S GARDEN, BRIGHTON.

Mr. Breck is known throughout the country; wherever flowers are admired and cultivated, there is he an admitted authority—a household friend. His "Book of Flowers" is, without doubt, the most complete and satisfactory work, that we have upon the subject;—it is just the work upon the very subject, that, with a full knowledge of Mr. Breck's character, any one would have prophesied that Mr. Breck could and would write; a work unpretending, exact, quietly enthusiastic and complete; just Joseph Breck "set up" (not in the convivial sense!) in duodecimo form, pagged, pressed and bound. It was no common treat to visit his garden, with himself as guide, and speaking of his own flowers as if they were the beautiful creations of God for the general enjoyment;—it was no common treat to sit down at his tea-table, and to partake of his old-style—hearty—open-handed—unapologising hospitality; with his worthy help-meet doing the honors of the evening meal. But we must leave this repeat

"—and the cup
That cheers, but not inebriates," * *

to walk forth in the garden.

Mr. Breck's garden contains about 3 acres of land,—a part of which is a new purchase, now undergoing transformation and improvement. The planted portions of the garden were in the finest condition, as to culture and cleanliness; all spoke of active, careful superintendence.

Among the plants especially noticed, most of which were in bloom at the time of our visit, are the following.

Clematis viticella atro rubra—a much admired imber, with a profusion of brownish red flowers, growing 10 to 15 feet in a season; *C. viticella ma-*

jor—a vigorous climber, like the last, with large purplish blue flowers; *C. viticella plena*—also a great climber, with curious double flowers in clusters, of a dark lead or bluish slate color; *C. Shillingei*, with dark colored flowers; *C. Hendersoni*, with blue flowers; *C. cylindrica*, with paler blue flowers; the three last are climbing plants, but not so vigorous as the three first named. *Clematis alpina* with profuse clusters of white flowers, and *Clematis integrifolia*, with solitary blue flowers—both tall plants, but not climbers.

In addition to these beautiful varieties of the clematis in bloom, there are in this collection *Clematis Sieboldii*, *C. azurea grandiflora*, *C. flammula*, *C. florida*, *C. florida plena*, *montana*, and other varieties coming later into bloom—all desirable for their beauty, but some of them requiring slight protection in the winter.

The roses were nearly out of bloom, but we saw the remains of about 150 varieties of the finest sorts in the country. To see the roses in perfection, they should be examined during the first week of their bloom. Mr. Breck's stock of hardy herbaceous plants is probably as choice as any other in the country; as it has been his care for the last thirty years to collect from every source this pleasing class of plants. We believe it is conceded by most amateurs, that his seedling *Delphinium*, No. 1, (*D. Breckii*) is one of the most brilliant and desirable of this tribe. It was raised by him some 10 or 12 years since, from the seed of *D. grandiflora*, probably crossed with *D. sinensis plena*. The flowers are double—of the most exquisite ultramarine blue, with a whitish shade in the centre. It grows from 2 to 3 feet high, and is in bloom from June to October, if care is taken to cut off the flower stems, as soon as the first bloom is over. As it does not produce seed, it is propagated from divisions of the root.

Of the *Phlox* tribe we found about 75 of the best varieties; but few of them were in bloom. *Bampanula persicaefolia plena*, and variety *plena alba*, and other varieties of *Campanula* were in bloom; also many beautiful varieties of *Spiræa*.

The forcing house for grapes is about 50 feet long; half of the crop has been disposed of, but we noticed the vines near the door heavily laden with fruit. The cold graperies are 85 feet in length, with span roof divided into two apartments. There are four tiers of vines, about 80 in number, in these houses, embracing 18 varieties—about 11 more, says Mr. Breck, than I would recommend to the horticulturist. A small green-house 32 feet long, is attached to the cold-houses.—*Practical Farmer*.

PRINCE ALBERT'S FARM.—Public interest in Prince Albert's agricultural experiments must be considerably cooled by the fact (brought out in Parliament) that they are carried on chiefly at the public expense. It appears that his Royal Highness has two farms, for one of which he pays rent like any other tenant, but has the rare privilege of making what improvements he pleases, one-half at the expense of the public; while of the other farm, a dairy appended to Windsor Castle, the whole charge is thrown on the Civil List. Prince Albert must be a poor agriculturist if he can not work two contiguous farms held on such a tenure to very decided pecuniary advantage.—*North British Mail*.

EXTRACTS AND REPLIES.

GATHERING APPLES.

A correspondent suggests the gathering of apples, now that the price of labor is so high, in a more expeditious manner than usual, by spreading a thick coating of hay under the tree, and shaking them down. This course would prove ruinous to a large number. In falling they would strike the limbs of the tree, and each other when reaching the hay. Too much care cannot be observed in gathering winter fruit to keep it free from even the slightest bruises. If fruit were classified into first, second and third classes, having class one as near perfection as possible, the seller would find a greater profit than he possibly can by mixing the different qualities. Poor apples not only injure the good in their appearance, but actually affect their soundness, and lessen the price of the whole. Properly sorted, the imperfect and unsound fruit may be disposed of early, and the best reserved, until prices have increased.

RECLAIMING MEADOWS.

DEAR SIR:—I have a piece of bog land about eight acres in extent, situated within a few rods of my building. One-half has been mowed for twenty-five or thirty years, and the other half is covered with a mixed growth of hard and soft wood. It produces now the most worthless kind of grass. I wish to clear it up, and drain it, and I desire to know your opinion, whether it will probably pay for the labor? (a.) There is about three feet natural fall on the land, and by digging, I can get two or three feet more. The muck, in the middle, is from six to ten feet deep, and of a dark brown color; and below this, lies a mixture of blue clay and sand. I have dug in different places and find trees, four feet below the surface, laying as they fell, but in such a state, as to be easily cut with a shovel.

I wish to know, also, the best method to cure corn for winter fodder which has been sown broadcast and in drills. (b.)

Yours respectfully,

J. V. C.

Warren, Me., 1854.

REMARKS.—(a.) Certainly, it will pay, and pay well, too, if you manage it judiciously. Do not drain it too deep, or you will leave it a dry, unfertile mass. The water should come within 12 or 18 inches of the surface, but perhaps not to remain there permanently through the summer.

(b.) We do not consider corn profitable to be cultivated purposely for fodder. It is exceedingly difficult to cure it (as the sun has lost the intense power it exerts in July,) when the corn is fit to cut. Some persons cut it and spread upon the ground for a day or two, and then tie it in bundles, and place them astride walls, fences, or upon poles erected for that purpose.

RUST ON THE APRICOTS.

Can you tell me the reason why, (and remedy, if there is any,) the rust affects the apricot? Last year, I lost all the fruit on a valuable tree—this

year about two-thirds, and there was a great deal of fruit both years. I looked in your valuable paper all last summer, and thus far this, hoping to find something in reference to it, but have seen nothing. If you can give me any information either through the paper or by note, I should be much obliged. I send you a sample of both kinds, good and bad.

M. P. N.

Cambridge, Aug. 10, 1854.

REMARKS.—The above is from a lady, and we wish it were in our power to suggest a remedy for the blight of which she speaks. A portion of the specimens sent were unusually large and nice, while others were shrivelled and rendered entirely worthless by a thick coat of rust. On our own apricots we have seen nothing of the kind. The apricot tree would not be likely to remain long in a healthy condition standing in heavy wet land; or if the tree lacked any of the elements which the fruit requires, rust may be the consequence. We should recommend a digging about the tree, and thoroughly mingling with the earth a little ashes, bone dust, lime, soap suds, &c., and after the leaves have fallen in October, shorten in the limbs some two to four feet. This last operation is as essential to success with the apricot as with the peach or the plum.

GREAT YIELD OF CUCUMBERS.

From 4 hills of cucumbers I gathered at one cutting, 6 cucumbers which measured, laid in a line, 6 ft. 6 in.; the longest measured 15 inches. One of them was bent down at the stem and into the shape of a holster pistol; my wife took up that one and said "O, here is a gun!" I think this a great crop for one cutting; growing a single cucumber of long length is one thing, but growing them by the dozen is another thing. These were not full-grown cucumbers, but just right to serve on the table. JOEL HAPGOOD.

Shrewsbury, Aug. 4.

THE SINGING BIRDS AND THEIR SONGS.—The last number of *Hovey's Magazine* has a finely written article, with the above title, written by WILSON FLAGG, Esq., of Beverly, a gentleman engaged in landscape gardening and laying out grounds. Mr. FLAGG seems to possess the nicest appreciation of animated nature, and particularly of that interesting part of it—the Birds. He says it has not been his "good fortune" to hear the notes of the rose-breasted grosbeak. We once had the good fortune to secure one which seemed to be bewildered, and flew into the house. It was placed in a large cage and kept for six weeks. It is a nocturnal warbler; but it is chary of its notes, and only sung with us when the nights were perfectly still. Then its notes were low, all of the minor key, and extremely touching. If we knew that our readers would enjoy the perusal of this article as we have, we should transfer it, though rather long, to our columns.

For the New England Farmer.

AGRICULTURAL IMPLEMENTS.

We perceive that increasing attention is given to these, and we know of no way in which the operations on the farm can be so readily improved, as by introducing such implements as are best fitted for the purpose.

Already everything has been said about the plow, that it is profitable to say; but about the implements for cutting the grass when grown, a new vein seems to be opening, and a variety of forms putting forth. We had supposed that "Ketchum's Mower" was to occupy the field; but we hear objections made that it requires too much power of draft, and a speed of movement in the team, that cannot long be sustained;—both of which objections, we think, may be readily overcome. The first, by a more complete finish to the machinery,—the second, by giving an increased velocity to the cutter. The principle of the machine seems to be perfect, if these little difficulties can be surmounted; and a perfect knowledge how to use it can be acquired. A want of this is probably the reason why so many have cast it aside. I know a man, who procured one of these mowers, the last year, and tried it half a day, and then laid it by. The same gentleman has taken it out the present season, and tried it thoroughly, cutting more than one hundred tons of hay with it, and now says he would not be without it for \$2000. He considers it the best illustration of labor-saving machinery he has ever met—coming into use, just at the season of the year, when labor is most needed. This machine is operated by two horses, cutting when in good order, one acre of grass, in an hour. I have heard of machines fitted to be worked by one horse, simpler in their structure, and less likely to get out of order. When such can be perfected, I think they must come into general use. A gentleman has recently authorized the offer of a premium of *one hundred dollars*, for the best mower fitted for use on our farms, &c. This will appear in the next offer of premiums by the Essex County Society. In the meantime, we hope every manufacturer will send us to the Show at Lawrence, such as they now have, that the farmers may understand what a mower is, and how it operates.

August 9th, 1854.

REMARKS.—We have paid good mowers \$2,25 a day this season, and they were offered \$3,00 per day for a few days. Now this will not answer for the common farmer; some cheaper mode of cutting his grass must be devised. As our correspondent states, we have no doubt that the true principle of mowing by machinery, has been discovered. The machines, however, like most others in their incipency, are imperfect; use, and the genius of our inventors and mechanics will soon obviate their present defects. But a machine to be drawn readily by one horse is now the great want of the New England farmer. Most of them keep one horse—only a comparative few, two. If this machine should cut a sward of only two feet, or even 18 inches, and so constructed

as not to be liable to get out of order, it would supply the great present want of our farmers. Our correspondent has done well in calling attention to this important subject, and we trust that a good machine for one horse will be ready before another hay harvest comes.

DESTRUCTION OF BUSHES.

In many places there are grounds which cannot be well plowed, that afford tolerable pasturage, if not too much occupied by bushes. The shrubs which are inclined to grow in these situations, are alders, briars, of several kinds, whortleberry, &c. When these are permitted to grow, they prevent the growth of grass to a great extent, and make that which does grow sour and worthless.

The mode usually adopted for killing bushes in such circumstances, is to mow them. The efficiency of this has been found to depend much on the time of the year in which the work is done. Cutting in winter seems to have little effect towards destroying them; they start with the return of spring, and grow rapidly. The effect is nearly the same if they are cut while the foliage is developing. All trees and shrubs make their annual growth in a few weeks from the time of putting out leaves. During the remainder of the season the wood hardens and the buds of the next season's foliage are set. The juncture when the leaves have attained their full size, and the growth of the season is checked, is sometimes called "turn of the sap." The vitality of many plants is greatly impaired if they are cut-off at this time. But with another species, cutting at another period—the last of August, is more fatal.

The black alder usually grows in moist, rich ground, such as is very natural to grass. From their rapidity of growth they soon occupy the ground to the exclusion of other vegetation, and appropriating the best soil to their use, they occasion much loss. Attempts are often made to eradicate them, which do not succeed, and this produces discouragement, which induces the farmer to allow them to grow unmolested. The results of trials at cutting alders at various seasons of the year, have proved that the above mentioned is preferable. We might cite much evidence in support of this, but perhaps what we have already said may induce some one to undertake the work.

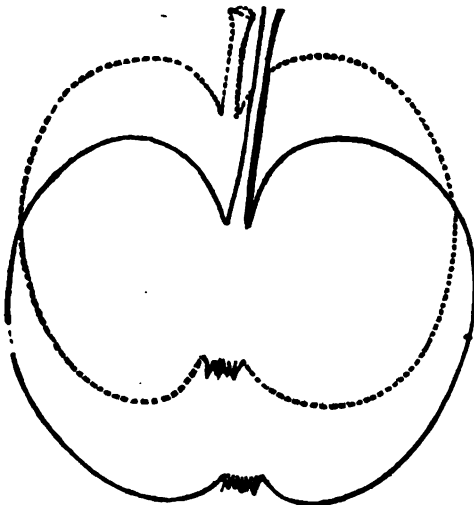
In killing briars and small bushes, *bruising* sometimes answers better than cutting. A tool called a "bush whacker" has been used for this purpose.

Briars and whortleberry bushes may be kept down by sheep, after having been closely cut with a scythe. It is necessary, however, to stock heavily in order to compel the sheep to eat the bushes as soon as they start. If the bushes are closely kept down for a year or two, the grass will spread and form so close a sward, on good land, that the bushes will have little chance to grow. It is important that when the work is begun it be followed up. Once mowing may be partly effectual, but if the sprouts are not cut at the proper time the next season, the labor is in a great degree lost.—*Boston Cultivator.*

THE SUMMER ROSE APPLE.

This apple (*dotted line*) is known not only by the name above, but as Woolman's Early, and Woolman's striped Harvest. Downing pronounces it a very pretty and very excellent apple, highly esteemed as a desert fruit, and describes it as follows:—"Fruit scarcely of medium size, roundish. Skin smooth, rich waxen yellow, streaked and blotched with a little red on the sunny side. Stalk rather short, and slender, calyx closed, set in an even basin. Flesh tender, abounding with sprightly juice. Ripens early in August.

THOMAS says it is fine in all localities. Better in quality for the table than Early Harvest, but less productive.

**THE EARLY STRAWBERRY APPLE.**

This apple (*plain lines*) is the American Red Juneating of MANNING. THOMAS says it ripens one to three weeks later than the Early Harvest, is productive and good in all localities. COLE says it is a moderate grower and good bearer. DOWNING says it is a beautiful variety, which is said to have originated in the neighborhood of New York, and appears in the markets there from July to September. Its sprightly flavor, agreeable perfume, and fine appearance, place it among the very finest summer apples.

Fruit roundish, narrowing toward the eye. Skin smooth and fair, finely striped and stained with bright and dark red, on a yellowish white ground. Stalk slender, and an inch and a half long.

THE FATHER OF SANITARY REFORM.—About eighteen hundred years ago, Plutarch discharged the duties of "commissioner of sewers and public buildings" in his native city of Chaeronea. The very fashionable people sneered at the "commissioner," and wondered that a gentleman should stoop to anything so low; the ordinary common

sense sort of people thought it odd that a philosopher should degrade himself into a puddle-police-man; while Plutarch's most intimate friends, who seem to have had a good deal of sarcastic humor, delighted to remind him of the remarkably exalted office to which his genius had raised him. On one of these occasions, the honest biographer made a reply worthy to be adopted as the motto of all sanitary reformers. "It is not for myself," said he, "that I do these things, but for my country. The usefulness takes off the disgrace; and the meaner the office I sustain, the greater the compliment I pay to the public."—*The Commonwealth (Glasgow newspaper).*

For the New England Farmer.

ITCH, OR SCAB, IN SHEEP.

There are few diseases, perhaps, more generally or more deservedly dreaded than the "scab." In many sections of the country, where sheep husbandry is pursued on an extensive scale, the losses resulting from its prevalence, in years past, have been immense. It is, indubitably, a contagious disease, and while it is easily propagated by simple contact, is often communicated to animals that have never been brought in collision with those diseased. Like many of the virulent and loathsome diseases which have of late years astonished mankind by their unheralded appearance, and perplexed medical men by their inveteracy, it may well be called "a pestilence which walketh in darkness;" though we are not perhaps warranted in considering it strictly epidemic, though it sometimes seems to be conveyed through the atmosphere, and particularly in those seasons when there is a super-abundance of wet, and which are generally unfavorable to sheep in various other ways. The diagnoses and treatment of this troublesome disease, are thus explained by one whose experience in veterinary practice entitles his opinions and prescriptions in this, as well as in all other matters connected with his profession, to respect:—

"It is discovered by the animal's constantly rubbing or scratching itself, and making at the same time a peculiar motion with the lips. The scabs are sometimes dry and sometimes moist, and spread very rapidly, though the animal continues healthy in other respects, and generally more healthy than before. Afterwards, however, the disorder becomes internal, the sheep becomes emaciated, and dies from weakness and pain. If the scab is observed at an early period, it may easily be cured, or at least prevented from spreading. One of the best remedies is a decoction of tobacco to be applied to the diseased parts, after scratching off the scabs with a comb or other instrument.—The decoction of tobacco mixed with lime-water and oil of vitriol, and used constantly for some time, will generally effect a radical cure; another excellent remedy is a decoction of hellebore mixed with vinegar, sulphur, and spirits of turpentine. Internal remedies are of no use except when the disorder has induced other complaints by weakening the general health."

Sheep are no doubt greatly injured, oftentimes, by confinement to low, wet pastures, where they are forced to eat aquatic grasses, and repose on damp and cold ground. It is generally well known that the most favorable regions for sheep

breeding, and those in which it has been most successfully pursued, are those of a hilly, mountainous description, and where little or no aquatic vegetation is produced. High lands, even if dry and arid, are always favorable to this animal.

AGRICULTURAL PROGRESS IN OHIO.

It is with more than ordinary pleasure, that we insert the letter below. First, because it is strong evidence that the great want of the farmer—a systematic education, or, knowledge systematized—is beginning to be properly appreciated, and that through such appreciation, means will be derived to educate him as thoroughly for his pursuit as are the lawyer, physician or clergyman, for theirs. Secondly, because it will show our New England people what those in a sister State are attempting, and they may thus catch the spirit of their Western neighbors. And, thirdly, because by giving publicity to their plans we may, in some degree, promote the noble work in which they have engaged.

The great Art of Agriculture demands more of the heads, as well as the hands, of "Young America." Too many young men forsake it for in-door occupations, vastly more appropriate for the other sex. An advertisement in the morning paper, of a large city, will bring five hundred applications for a clerkship in a counting-room, in a single week, while scarcely a dozen will answer the call for a good gardener, or superintendent of a farm, though the compensation of the latter shall be much the largest. False notions of gentility have put the best hat and boots on the clerk,—and while he shines in his broad-cloth, he too often starves in his garret!

We do not ask that all shall be farmers, but only that those who *do* engage in the profession shall work understandingly—shall not labor through life at cross purposes, by applying to their acres what they already contain in excess, and rob them unto sterility of that which they cannot spare. And so of their plants and animals.

Little hope have we of substantial progress and improvement among ourselves, enshrouded by our own ignorance and indifference—indifference worse than ignorance itself—and the care and toil of the farm. Ignorance begets ignorance, and indifference its like. If a more intimate knowledge of the operations of nature in the springing, growth and perfection of plants and animals, and a higher appreciation of the fitting and beautiful in all the manifestations of Deity about Him, will not give character and tone to the profession, and imbue the farmer with an intense love of the calling, then, indeed, shall we despair. But we fling all fears to the winds on that score. Educate the laborer so that he shall comprehend his work, and the point is gained. He shall find a sort of fas-

cination, even in hoeing potatoes, when he understands how he increases the means of fertilization in so doing; how many millions of mouths he opens about his feet ready to catch the genial nourishment ever ready to drop fatness into them from the surrounding atmosphere. His educated mind shall not prompt him to fling the old bone under the wall as before, but he will hear the famishing plant cry for some element essential to its growth, and to appease it, he will bury the bone within its reach in the mellow earth, and dream of seeing its numerous roots encircling it in joyful embraces!

The farmer delves in the dark, he deals in mysteries, he guesses at results, and hopes his crops will be remunerative, because he "does the best he can." He does not, as does the merchant, make arithmetical calculations of loss and gain, and rely upon them as approximating the actual results. But why should he not know, as a general thing, what the gain shall be, nearly, upon any given amount of seed sown, or animal or plant reared? Why merely for want of accurate knowledge of the things wherewith he labors. He has little system, and has studied and thought but little, not because he had no desire, but because the opportunity for investigation had not been placed before him. If we thought it would not startle the reader we should say that there ought not to be much uncertainty as to the result of crops, even in our changeable climate. If we could know what kind of soil is best adapted to the growth of wheat, what depths its roots would like to run, when it ought to be sowed and when harvested, does any one doubt that we should get a good crop nine times out of ten? And so of all other grains and grasses, and every other department of the farm—the cattle, sheep, swine, horses, poultry, butter, cheese and roots.

Do any believe that this knowledge, so essential, cannot be obtained? That the Creator has involved the primitive employment of man—that upon which he must depend for subsistence, and which underlies and sustains all others—in a labyrinth of difficulties and uncertainties so complicated as to defy the powers of that mind which He, too, gave! No, no, it cannot be so. We only lack the proper instrumentalities. Let these be set at work, and light will soon shine upon the darkness that surrounds us. But we will not keep the reader longer from the letter.

College Hill, Ohio, Aug. 3, 1854.

TO THE EDITOR:—It is contemplated to hold a Mass Convention at this place, the site of Farmers' College, and adjacent to Cincinnati, on 13th, 14th and 15th of Sept. next. Measures have been taken to secure attendance from all the "West," and we are encouraged in the belief that, responsive to our invitations, delegates from every section of the Union will be present.

It is proposed to continue the session of the

Convention for three days, as above indicated, in order to afford opportunity for the discussion of various matters connected with the great topics then to be considered, and on the third day to have a mass attendance, and popular addresses delivered by men whose abilities are known, and whose influence and efforts have been directed to the furtherance of this important educational movement. We accordingly address you, soliciting your attendance with us on that occasion. The trustees of Farmers' College, being now about to conclude the contract for the purchase of a Model Farm, adjacent to the institution, to be employed by the Agricultural department, as the experimental laboratory, for the teaching of Agricultural science, in its theory and practice, it is proposed on the occasion of this Convention to dedicate this Farm, with appropriate ceremonies, to the uses of industrial education, in all the diversified departments of agriculture. We think the occasion will be one of peculiar interest to the scholar—it is already attracting no small measure of public attention, and is eliciting universal public approval.

Permit us then, though strangers personally, yet not strangers to your reputation, to urge our request inviting your attendance.

Should it be found impracticable for you to favor us with your presence, permit us to ask at your hand, such *written* expressions of your views in reply to this, as your leisure may admit, and allow us the public use thereof, on the occasion referred to. To the end that you may be more thoroughly apprised of the aim and scope of our educational enterprise, and informed of our present condition and future prospects, we have taken the liberty of mailing to your address, a circular, our last annual catalogue, and the Inaugural Address of Prof. ALLEN, delivered at our last Commencement.

Hoping to hear from you favorably at your earliest convenience, I subscribe myself, in behalf of the Board.

Most respectfully, &c.

F. G. CARY.

Having thus briefly, and very imperfectly expressed our convictions of the want of means whereby the farmer may obtain a higher order of education than is now common among us, we will suggest a few of the subjects which are still clothed in almost impenetrable darkness.

It will not be necessary here, however, for us to refer, minutely, to the long agitated questions about the time and depth of plowing—the best forms of plows—the time of sowing and harvesting grain, grasses, flax, and other crops—the best modes of increasing and applying manures—the true process of raising the largest amount at the least cost, of our great staple, Indian Corn;—nor to the numerous questions springing from the employment of concentrated fertilizers which still remain untried by the mass of our people, or questions relating to the various breeds of neat cattle, horses, sheep, swine and poultry. These are so prominently before the public mind, and are so essential to the commonest success, that they will not be overlooked by any system of investigation at all worthy of the name.

In passing to another class of subjects, we find that little or no knowledge is possessed upon them. How few of those who have reared a horse or cow, know anything of the physiology of either animal! In cases of sickness or accident, or in supplying their daily amount of food, that science affords them no more instruction than though it did not exist, so far as their own investigations have gone. To them, also, the various soils are all common dirt,—even their names, and the names of the rocks which compose them, are among the hidden things which are altogether past their finding out. Meadows, and springy hills, are wrought upon by one generation after another, in order to avoid an excess of cold water and bring them to fertility, but without advancing one step towards the object desired, and what is worse, ever perpetuating the bad example upon which they practice. The art of draining to them, is as a "lost art," or as useful as a problem in the Timbuctoo tongue.

The same looseness and error which prevail in regard to sowing seeds, if practiced by the merchant in his affairs, would soon bring him to bankruptcy and ruin. Beside the uncertainty as to time and place of sowing, we do not give that precise quantity of seed and the position best calculated to produce the largest return. Thus enormous quantities of seed, altogether, we believe, beyond the common supposition, are annually wasted in overseeding. On this point a real practical cultivator in England, Mr. CLOSE, gives his experience in the papers of the Bath Society. He asserts that he saved full *one thousand dollars each year* in seed, by drilling his grain upon 500 acres of land and then horse-hoeing it, instead of sowing it broadcast, as is our practice. After close and long observation of both modes of sowing, and great practical experience himself, it is his opinion that 8,000,000 bushels of wheat, 3,000,000 bushels of barley, 1,000,000 bushels of rye, 4,000,000 bushels of oats and 1,000,000 of peas and beans are annually thrown away in England, in superfluous seed. Then it is ascertained that seed drilled in and cultivated, *produces* about a *5/12* more than when sown broadcast. This is a *les* loss, and is a far greater one than that sustained in the seed itself.

There is, also, a best way of planting, rearing and shaping fruit trees, and of collecting and packing the fruit:—yet the practice is almost as diversified as the cultivators themselves. The consequences of this is, constant change and uncertainty on the whole matter, and of course, great loss. But the cases already presented are sufficient for our present purpose.

On all these the profession needs the results of the most thorough and enlightened experiments with steady and patient investigation. On the sowing of seeds, for instance, it requires a field of several acres, where the various grains shall be

sown side by side, broadcast and in drills, with various quantities of seed in each, and deposited at various depths, and then accurate returns rendered of the cost of labor and seed, and the product of each experiment. In this way such information may be obtained as will settle the questions presented, command the attention and respect of the cultivator, and greatly increase the product of a given amount of investment and labor. Some of the questions which occur to us at present are as follows:—

1. Can the chemist so analyze soils as to tell the farmer, with certainty, what particular element, if any, is lacking in a particular soil, to perfect a crop of wheat, or any other crop he may desire to plant?

2. Can this be done at such a cost as to enable the common farmer to avail himself of its benefits?

3. If the two preceding questions are answered affirmatively, can the chemist state, with confidence, what quantity of lime, or potash, or ammonia, or phosphate, or any thing else, each acre should require for any given crop?

4. What are the benefits of draining and irrigation to lands, and what are the true modes of operation to realize them?

These are questions of the first importance to the agriculturist—indeed, they are so to the world—and are sufficient to show our views of the many points which ought to be settled and established by some competent and high authority. We are aware that these questions are answered in the books—but the books don't agree. They have been written, some of them, by empirics; some are the garbled extracts of mere collators, and some by those who wish the profession well, but whose zeal ever outstrips their knowledge, and makes them unsafe guides.

There are, also, an hundred questions of lesser magnitude, that demand a solution from high, competent authority—such as,

1. In reclaiming swamp lands, has it been ascertained at what depth from the surface the water should be taken off, in order to produce the most, and the best quality, of English grass?

2. What is dry swamp mud worth, per cord, for agricultural purposes?

3. Where farms are drained, is the old system of transverse ditching the lowest parts of the land still adhered to, or are the true principles of draining applied?

4. Where large quantities of stones have been taken from a field, including those so large as to require blasting, does the land remain equally as fertile as it was before they were removed?

5. What is the most expeditious way of getting rid of large stones, when they are not wanted for building or other purposes?

Then there are numerous questions relating to

the feeding of stock, and to the stock itself—in relation to the grass and root crops, to the various fruits, implements, &c., all of which seem to be involved in doubt and uncertainty.

We cannot be present on the interesting occasion mentioned in the letter, and have been able to throw out these crude remarks in the midst of sickness and suffering. We shall send, however, with this, the well-considered plan of a *Model Farm*, furnished by our Associate, Mr. FRENCH, and published in the fourth volume of the monthly *Farmer*.

We have no confidence, however, in the success of this cause in any institution where it is introduced to catch the popular favor and made to take a secondary place. As it underlies and sustains all the other occupations of man—all arts, sciences and trades, so does it all our institutions of learning. Let the national agriculture languish, and all these will suffer with it. But let it be generously sustained—let those engaged in prosecuting it be enlightened in the manifold operations which it requires, and the whole body politic will feel its pulse and power.

DYING SELDOM A VERY PAINFUL PROCESS.

According to my observation, the mere act of dying is seldom in any sense of the word, a very painful process. It is true that some persons die in a state of bodily torture, as in cases of tetanus; that the drunkard, dying of delirium tremens, is haunted by terrific visions; and that the victim of that most terrible of all diseases, hydrophobia, in addition to those peculiar bodily sufferings from which the disease has derived its name, may be in a state of terror from the supposed presence of frightful objects, which are presented to him as realities, even to the last. But these and some other instances which I might adduce, are exceptions to the general rule, which is, that both mental and bodily suffering terminate long before the scene is finally closed. Then, as to the actual fear of death, it seems to me that the Author of our existence, for the most part, gives it to us when it is intended that we should live, and takes it away from us when it is intended that we should die. Those who have been long tormented by bodily pain are generally less anxious to die, as they ever were to live. So it often is with those whose life has been protracted to an extreme old age, beyond the usual period of mortality, even when they labor under no actual disease. It is not very common for any one to die merely of old age. But I have known this to happen; and a happy conclusion it has seemed to be of worldly cares and joys. It was like falling to sleep, never to wake again in this state of existence. Some die retaining all their faculties, and quite aware that their dissolution is at hand. Others offer no signs of recognition of external objects, so that it is impossible for us to form any positive opinion whether they do or do not retain their sensibility; and others again, as I have already stated, who appear to be insensible and unconscious, when carefully watched, are found not to be so in reality, but they die contentedly.—*Psychological Inquiries.*

For the New England Farmer.

LAKE CHAMPLAIN DROUGHT, CROPS, &c.

I have not the honor of being the *oldest inhabitant*, so cannot say what has been, but for 27 years, during which time I have been a resident of this valley, I have never known such a drought as at present. We are literally *dried up*. Streams, large and small, are very low; some, on which are mills, have no water except in holes. Since June 10th, only 2.81 inches of rain—1.21 in June, 1.60 in July, and the last only .02 July 29th.—June was $3\frac{1}{2}^{\circ}$ colder than last year, July $5\frac{1}{2}^{\circ}$ warmer.

May and June were favorable for grass, of which there has been a great crop, and well secured; oats, wheat and rye, a full average; corn and potatoes, many pieces a total failure; buckwheat, carrots, &c., do. In some towns there have been showers, so there may be half crops. Fruit—apples not one-fourth an average, and very small; pears few; plums, the most hardy plenty, others *very few*; grapes, early ones mildewed, Isabella and other late ones promise well. G.

Burlington, Vt., Aug. 19.

For the New England Farmer.

GRAPE WINE—HEN LICE, &c.

MR. EDITOR:—Last spring I took half of a flour barrel and filled it with dirt—took down a branch of a grape vine that grows in my field, and buried it therein, according to the directions laid down in COLB'S Fruit Book. And now, after cutting it from the parent vine, what shall I do with it? Shall I plant it this fall, or not until spring, if not until spring, what shall I do with it this fall and winter? (a.)

I saw in the *N. E. Farmer*, (to which I am a subscriber) of July 29, a recipe for making *currant* wine, but I have looked in vain as yet, for a recipe to make *grape* wine. Cannot you inform me how to make good wine from our common native grape? (b.)

I have noticed in the *Farmer* that different correspondents have told their methods for destroying the curculio, striped bugs, lice on cattle, &c., &c., but no one has ever told how to destroy lice on fowls. In a part of the bay in my barn I keep corn husks in the winter, and in the summer I keep my sleigh and meal barrels, &c. My hens make nests in my sleigh and about in the bay and lay and set and hatch chickens there. The other day I found to my surprise that my sleigh, plow, &c., were covered with myriads of lice. I looked in the henroost, which joins the bay, and found they were there, too. Now if you can inform me through the columns of the *Farmer*, of any method that will destroy such vermin, I shall be very much obliged. I am about building a henery, and how shall I manage to keep it clear from being infested with vermin? (c.)

Respectfully yours,
Wrentham, August, 1854.

IGNORAMUS.

REMARKS.—(a.) Transplant your grape, after the frost has killed the leaves, into the spot where you wish it to remain, see that no standing water can remain about it, and protect it slightly through

winter with the boughs of evergreens, or coarse hay or straw.

(b.) B. F. CUTTER, Esq., of Pelham, N. H., will instruct you how to make wine from the native grape.

(c.) Vermin on fowls may be destroyed by slightly greasing or oiling, the top of the head of each fowl, and applying it under the wings. Feed to them an occasional mash of boiled onions and Indian meal; rub the roosts with raw onions. A correspondent in last year's volume of the monthly *Farmer*, says that a feather dipt into spirits of turpentine, and the parts most infested touched with it, will destroy the intruders. The oil, however, will be effectual, if persisted in, as the spiracles or breathing pores of the body become clogged and they cannot breathe.

RECIPE FOR MAKING GRAPE WINE.

EDS. RURAL:—For the gratification of your correspondent, "H. B.," of Toledo, and perhaps other readers of your excellent paper, I submit for insertion the following mode of making Grape Wine. It may be affirmed that from the days of NOAH down to the present time, good wine, either from the juice of grapes or any other fruit, has been obtained only through the simple process of fermentation. My practice in making wine for the past twenty years, has been as follows:

When the grapes are fully ripe, and have been removed from the vineyard to the place assigned for making the wine, they should be assorted, and all the green and decayed ones removed. Then put them into a barrel, about a bushel at a time, stems and grapes, and pound them thoroughly till all the grapes are mashed. Continue the process till all are finished that you wish to make up at that time. The next process is to press out the juice or must. Then to every gallon add two pounds of sugar, and stir it thoroughly till all the sugar is dissolved. It is then put into barrels for the purpose of fermentation, there to remain, with frequent filling up to supply the waste, till the pomace is all fermented off. A supply of the must should be on hand for that purpose. The barrels should not be bunged up until the fermenting process is about completed. This may be easily ascertained by placing your ear to the bung. If in April or May the wine should be found clear, it may be racked off, but if unsettled it should be left till fall. If the wine is found to be just what you want it at the time of racking, bottle as much as you choose; but if not, let it remain on the lees, and the article will increase in character and strength.

I would remark that all grapes raised in this section of the country, do not contain enough sugar or saccharine matter to make good wine without the addition of sugar. H. B. L.

—*Rural New-Yorker.*

SAVING SWEET POTATO VINES FOR SEED.—A. P. Strobel sends to the *Georgia Telegraph* the following:

"Sweet potato vines may be saved during the winter, and used the following spring in propagating a new crop. I have tried the experiment during

this year, to my entire satisfaction. In the fall (any time before frost) the vine may be cut in any convenient length, and placed in layers, on the surface of the earth, to the depth of twelve or eighteen inches, cover the vines whilst damp, with partially rotted straw, (either pine or wheat will answer) to the depth of six inches, and cover the whole with a light soil about four inches deep. In this way the vines will keep during the winter, and in the spring they will put out sprouts as abundantly as the potato itself when bedded. The draws or sprouts can be planted first, and the vine itself can be subsequently cut and used as we generally plant slips. This experiment is worthy the consideration of farmers, as it will save a great many seed potatoes, (particularly on large plantations) which can be used for feeding. Let every farmer, however, make the experiment for himself, and be governed by the result."

SINGULAR CASE OF INSTINCT IN A HORSE.

We do not remember ever to have heard of a more remarkable exhibition of equine intelligence than the one which follows:—

Mr. A. had for a considerable time a span of sprightly little horses, that he had never separated. In the stable, in the field, and the harness, they have always been together. This has caused a strong attachment to grow up between them. A few days ago he went with them out to Lake Minnetooka, on a fishing excursion. Taking them out of the carriage, he led them to the lake and tied them several rods apart on a strip of grass that grew upon the shore, and left them to feed. Returning to the shantee, he threw himself upon the floor, to wait the return of the party who had repaired to the lake to fish.

Not much time had elapsed before the sound of approaching horses' feet attracted his attention, and a moment after, one of his horses appeared at the door. The animal put his head in, and giving one neigh, returned at a slow gallop, yet under evident excitement, to the spot where, but a few moments before, he and his companion had been seemingly safely fastened. Surprised to find his horse loose, and struck with his singular conduct, Mr. A. immediately followed, and found the other lying in the water, entangled in the rope, and struggling to keep his head from being submerged. While Mr. A. proceeded to disengage the unfortunate horse, his noble benefactor stood by, manifesting the utmost solicitude and sympathy, and when his mate was extricated from his situation, and again upon his feet upon terra firma, the generous creature exhibited the most unquestionable signs of satisfaction and joy. That this intelligent animal should have noticed the unfortunate situation of his mate—that he should know where to apply for rescue, and in his efforts should sunder a three-fourths of an inch rope, and finally that he should exhibit so high an appreciation of the event, are curious circumstances to us, and commend themselves to the thoughtful consideration of those who would limit the power of reasoning to the "genus homo."—*St. Anthony's Express.*

HOUSE ANTS.—The best way to get rid of ants is to set a quantity of cracked walnuts or shell-

barks on plates, and put them in the closet and place where the ants congregate. They are very fond of these, and will collect on them in myriads. When they have collected on them, make a general *auto-da-fe*, by turning nuts and ants together into the fire, and then replenish the plates with fresh nuts. After they have become so thinned off as to cease collecting on the plates, powder some gum camphor, and put it in the holes and crevices, whereupon the remainder of them will speedily *vamosé*. It may help the process of getting them to assemble on the shell-barks to remove all edibles out of their way for the time.

TIMELY PARAGRAPHS.

The following beautiful passage, by Washington Irving, in the "Home Book of the Picturesque," might almost make a day cheerful:

And here let me say a word in favor of those vicissitudes of our climate which are too often made the subject of exclusive repining. If they annoy us occasionally by changes from hot to cold, from wet to dry, they give us one of the beautiful climates in the world. They give us the brilliant sunshine of the south of Europe, with the fresh verdure of the north. They float our summer sky with clouds of gorgeous tints or fleecy whiteness, and send down cooling showers to refresh the panting earth and keep it green. Our seasons are all poetical; the phenomena of our heavens are full of sublimity and beauty.

Winter with us has none of its proverbial gloom. It may have its howling winds, and whirling snow storms; but it has also its long intervals of cloudless sunshine, when the snow-clad earth gives redoubled brightness to the day; when at night the stars beam with intensest lustre, or the moon floods the whole landscape with her most limpid radiance; and then the joyous outbreak of spring, bursting at once into leaf and blossom, redundant with vegetation, and vociferous with life!—and the splendors of our summer—its morning voluptuousness and evening glory—its airy palaces of the sun-gilt clouds piled up in a deep azure sky; and its gusts of tempest of almost tropical grandeur, when the forked lightning and the bellowing thunder volley from the battlements of heaven, and shake the sultry atmosphere—and the sublime melancholy of our autumn, magnificent in its decay, withering down the pomp and pride of a woodland country, yet reflecting back from its yellow forests the golden serenity of the sky, surely we may say in our climate "the heavens declare the glory of God, and the firmament showeth forth his handiwork; day unto day uttereth speech; and night unto night showeth knowledge."

WHO CAN STAND THE HEAT!—The editor of the *Buffalo Democracy*, an experienced iron worker, gives the capacity of different classes of people to endure heat. He has noticed that nearly all the deaths from excessive heat of this summer have been among emigrants. They cannot stand our hot dry summers. He says that in blast furnaces and rolling mills the Irish will endure more hard and hot work than the Americans of Ohio, Virginia and Kentucky, or Indiana. Yet it is of rare occurrence that an American dies of sun-stroke. The English and the Welsh endure hot work about

fire better than any other people. Sweating does not seem to exhaust them as it does a yankee.—They will do hard work in a blast furnace in the most sweltering weather of our summers, better than even the negroes. This is the experience of iron masters in Virginia.

SLEEP.—There is no better description given of the approach of sleep, than that which we find in one of Leigh Hunt's papers in the Indicator:

"It is a delicious movement certainly, that of being well nestled in bed, and feeling that you shall drop gently to sleep. The good is to come, not past; the limbs have been just tired enough to render the remaining in one posture delightful; the labor of the day is done. A gentle failure of the perceptions comes creeping over; the spirit of consciousness disengages itself more, and with slow and hushing degrees, like a mother detaching her hand from that of her sleeping child; the mind seems to have a balmy lid closed over it like the eye; 'tis closing more—'tis closed. The mysterious spirit has gone to take its airy rounds."

ADVERTISING DEPARTMENT.

A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

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For one square 15 lines, one insertion.....\$1.00

For each subsequent insertion.....50

The above rates will be charged for all advertisements, whether longer or shorter.

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THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of sticky, with perfect facility:

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop:

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverisers, quite unnecessary:

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverisation accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1863.

U. S. and Foreign Patent Agency,

No. 39 STATE STREET, BOSTON.

SAMUEL COOPER,

ATTORNEY Chief Examiner in the U. S. Patent Office, procures Patents in this and Foreign Countries.

REFERENCES.

The undersigned, Principal and Assistant Examiners in the United States Patent Office, have for several years been well acquainted with Mr. Samuel Cooper, lately a Principal Examiner in this Office, and take pleasure in stating that he is a gentleman of the highest moral character, of unquestioned knowledge in the business and practice of the Office, and that his scientific attainments are such as eminently fit him for the business in which he is about to engage.

HENRY B. REEVE, } Principal
L. D. GALE, } Examiners.
J. H. LANE,

T. B. PRALL, } Assistant
THOS. H. EVERETT, } Examiners.
F. SOUTHGATE SMITH,
WM. CHAUNCEY LANGDON,

From long acquaintance and intimate official relations with Mr. Cooper, I fully and heartily concur in the foregoing recommendation made by my late colleagues.

WM. P. N. FITZGERALD,
Late Principal Examiner of Patents.

Dec. 31.

J. H. HAMMOND, ARCHITECT.

THE subscriber offers his services to those about erecting new, or altering old, buildings. He will furnish drawings and working plans, specifications, and every thing in relation to a clear understanding of what is wanted. He thinks he is able to present some new views in the construction of barns, or in altering old ones, whereby more conveniences may be obtained and at less expense. His charges will be so moderate as to enable every farmer to avail himself of his services.

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May 27, 1854.

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THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "O. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

tf

Improved Church Vanes,

ALL COPPER,

MANUFACTURED BY

MESSRS. J. & C. HOWARD,

WEST BRIDGEWATER, MASS.,

MAY be purchased at the Quincy Hall Agricultural Warehouse
10 South Market Street, Boston.

July 1, 1854.

tf

Suffolk Pigs.



The subscriber has the pure Suffolk Pigs for sale from 3 to 4 months old, also a lot of half blood.

ABNER HAVEN,

S. Framingham

Jan. 14, 1854.

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Ground Plaster,

FOR SALE, at White's Mills, HAVERHILL, Mass. Apply to JAMES D. WHITE.

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Fine clover usually follows the sowing of plaster.

Jan. 28, 1854.

tf

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Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime—"DeBurg's No. 1."
Poudrette, of the best quality.
Ground Plaster, suitable for agricultural purposes.
Ground Bone, Bone Dust and Burnt Bone.
Also, Grass Seeds of reliable quality at the lowest market price.

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Feb. 18, 1884.

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W. G. LEWIS,

Lawa Farm, Framingham.

M

July 8, 1884.

Fruit and Ornamental Trees.



Newton Corner, March 23, 1884.

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S. & G. HYDE.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLD and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

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AGRICULTURAL

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M.

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My Farm contains pasturing enough to keep six cows, and produces hay sufficient to winter twice that number. It has a good share of the best of tillage land, the soil being a sandy loam, and 8 or 10 acres are covered with wood and timber. These are 70 acres in all.

The buildings are a large one-story house, with finished chambers, in good repair; two barns, one 26 by 44, the other 26 by 36; and a plenty of out-buildings. There is a pump for water in the house, and an aqueduct at the barn.

The place produces Apples, Pears, Peaches, Plums, Cherries, Currants, &c., in abundance. It is situated ten miles from Manchester city, 4 1/2 from a depot on the Wilton Railroad, and two miles northwest from Amherst Village.

To secure a ready purchaser to the above property, I offer to sell the whole for \$1500.

JOHN W. BRUCE.

Amherst, N. H., Aug. 19, 1884.

SvY



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, OCTOBER, 1854.

NO. 10.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH } EDITORS.

CALENDAR FOR OCTOBER.

"The Autumn has tinged the trees with gold,
And crimsoned the shrubs of the hills;
And the full seed sleeps in earth's bosom cold;
And hope all the universe fills."



OCTOBER, in New England, has a climate probably not equaled by that of any other portion of the world; not surpassed, certainly, under the often-boasted Italian skies.

There is an inexpressible charm in the first gatherings of the family around the pleasant sitting-room fire, and in the frosty mornings, as

well as in the bright sun, and the pure, elastic air we breathe.

Mr. BEECHER calls this the "painted month. Every green thing loves to die in bright colors. The vegetable cohorts march out of the year in glowing, flaming dresses, as if to leave the earth were a triumph, and not a sadness. It is not Nature ever that is sad; but only we that dare not look back on the past, and that have not her prophecy of the future in our bosoms.

"But there is as much life in Autumn as death, and as much creation and growth as passing away. Every flower has left its house full of seeds. No leaf has dropt until a bud has borne it. Already another year is hidden along the boughs; another summer is secure among the declining flowers."

October has its distinctive character—indeed, every month has—and is crowded with things beautiful to him whose mind is active, and who has his eyes open to observe. But it has its peculiarities—it is, as has been said by Mr. BEECHER, the "painted month"—the "month, above all others, for the artist to ply his delightful task of fixing the fugitive beauties of the scene; which,

however, he must do quickly, for they fade away, day by day, as he looks upon them." The Summer birds have mostly gone; a few flit from place to place, lighting on the ripened weeds and grasses, and feeding on their seeds; their notes have a softened and melancholy tone, as they come nearer and nearer our dwellings, and seem more social than in the hey-day of life. The grass-hoppers have grown lusty, and big black crickets resort to the heated sand to warm their old limbs; but when evening comes, in the kitchen hearth, or under some cozy tuft, they pitch their sonorous pipes and make the night vocal with their songs. During the month of October there are many evenings and nights of surpassing beauty; a clear atmosphere enables us to see innumerable stars, and the moon, with apparently new beauties. And then to him who will observe some of the phenomena of Autumn, there is ample opportunity of experiencing "the physical force of atmospheric motion in every degree; the gentle zephyr floating the thistle-down and undulating corn; the fresh breeze rippling the surface of the stream, and the tempest-blast whirling the dead leaves in every direction, and sometimes overwhelming the work of man with ruin and destruction."

In July, the fields are lively with the haymakers; in August, they gathered the grain; in September bent over the potato hills, and now in October, comes the Indian corn harvest, this, and the hay harvest, being the great agricultural staples of New England. Now, too, comes the pleasant husking parties, where all the old stories of the year are repeated with new unction. But, alas! the times are sadly changed; the girls not only decline to husk, though assured that some red ears may be found, but to bake the beans and boil the coffee for the midnight supper! Husking corn has lost its charm. Basque waists, Honiton lace and drapery sleeves are in the ascendant! Well, we like to see them, after all, and so

will husk a little later ourselves to make up the loss!

But there are many other things to be done in beautiful October. We wish we were a poet so that we could sing its charms. We have an inspiration, but cannot whip it into measure; so we give it up and

GATHER THE APPLES.—The last week in September is the time with many to do this work—but much depends on the weather. If frosts are severe they should be gathered early—if not, let them hang. Do not allow one to be in the least bruised that is intended for winter. Separate them into grades—the first grade will be likely to sell for as much as the whole if they were mixed.

MAKE THE CIDER.—Ten gallons of dirty stuff, compounded of villanous drugs, are used where one gallon of vinegar is used, made of pure cider.

THE POTATOES are probably dug, sorted, and placed in winter quarters.

THE SEED CORN is selected, of ears that ripened first.

DRAINING.—See, particularly, that the wheat fields are properly drained, and so that no surface water will rest upon them.

PRUNING.—Towards the last of the month pruning may be done with propriety. Cover the wounds with shellac dissolved in alcohol—apply it with a small brush. Shape young trees in the nursery.

TRANSPLANT apple trees. There is no better time.

THE GARDEN.—As an experiment, trench a portion of the garden, even if it be but a small piece, 18 inches deep and note the effect on the crops next year, other things being equal. rim out and tie up raspberries; dress strawberries; plant out hardy bulbs; and do all that may be done in the garden so as to save time in the spring.

VISITS.—Take a pleasant afternoon and go and see how others are managing their farms.

For the New England Farmer.

GUANO.

MR. EDITOR:—My object in writing at this time is to inquire, through your columns, how the farmers who bought guano for manure last spring, have succeeded in using it, for I think it is only by actual experiments upon our own soil, that we shall learn to apply it aright. The hope that others may be induced to communicate their experiments with it, influences me in giving mine. I trust you will excuse me for giving so particular a statement of my small experiment with it.

Last spring I purchased a bag of guano of J. Breck & Son. On the 22d of April I spread six pounds of it on two square rods of grass land; the land was moist. Its effect upon the grass was soon apparent; it gave the grass a very luxuriant growth in a few weeks. On the first of June there was twice as much upon it as there

was upon the part where none was applied. About the middle of June a rust, or blight, appeared upon the spot where the guano was put; the rust did not show itself much upon the rest of the field. On the 15th of July it was mown. When dry, the hay upon the two rods weighed 50 pounds; upon the two rods adjoining, 40 pounds, making a gain of 300 pounds to the acre. From this experiment, 480 pounds of guano to the acre gave 8000 pounds of hay at the first cutting. I think if six pounds had been put upon four square rods, the gain would have been more upon each rod.

I next used it to plant peas upon; 24 pounds were put into furrows, for two rows, through the piece, at the rate of 500 pounds to the acre; it was covered before the seed was dropped. The peas came up well; the vines were not so large as those planted upon manure; they filled as soon, and I think yielded as much. From this trial, 100 pounds of guano is equal to one cord of good manure for growing peas.

Upon the onion field I put 25 pounds, at the rate of 450 pounds to the acre; it was harrowed and raked in the rows. The rows crossed this strip at right angles, so that each row in the field had a part of the guano. The onions came up well; but they soon began to say, by their looks and actions, if not in words, we do not like this new fashion manure; and all through the season they have had a sickly look.

Some of it was put upon a small piece of turnips; the contrast of the effect upon onions and turnips was striking; it was applied in the same manner upon each, but it gave to the turnips a vigorous, healthy look.

I put 75 pounds of it upon my corn land; when the corn is harvested, I shall be able to give a more particular account of its effects upon corn.

I hope, Mr. Editor, you and your readers will give the public the result of your experiments with this manure. **WM. R. PUTNAM.**

North Danvers, Sept. 14th, 1854.

A HINT TO FARMERS.

A late writer says that "the less land a farmer has the more corn he will raise." This is so. Our friend S. once owned a farm of 300 acres, while his capital was so small that he could only half manure it. The effect was that he could scarcely pay expenses. The money he expended on fences should have been expended on guano; while the wear and tear of plow and harness, was nearly equal to the par value of his potato crop. Some three years ago S. endorsed for a friend. The friend forgot the day it was to fall due. S. had to take it up for him. To do this, he mortgaged his farm. The mortgage was foreclosed, and one half his farm struck off to the highest bidder. He thought he was ruined. No such thing. The manure, labor and horse-flesh, which he formerly scattered over three hundred acres, were spread over one hundred acres, and what was the result? We will inform the reader. He now clears \$2,000 a year, which clearing is effected with one-third the labor, swearing and chuckleheads, which he formerly made use of to keep himself poor and ill-natured. We conclude with the same text we set out with—"the less land a farmer owns, the more corn he will grow."—*Anon.*

VERMONT STATE AGRICULTURAL SOCIETY.

FOURTH ANNUAL FAIR.

We had the pleasure of attending this Exhibition at Brattleboro', on Tuesday and Wednesday of last week. The weather was all that could be desired—if it had been "made to order," or cast in a mould of exquisite pattern, it could not have been better. The mornings were cool, with an elastic and invigorating atmosphere; health and buoyancy were in every limb and countenance; the hills and valleys poured forth tides of living beings, full of joyous anticipations of the events of the coming day.

The Society had made the most convenient and liberal preparations for the occasion. The grounds contained nearly forty acres, and were enclosed by a board fence ten feet high. Convenient offices were erected for any branch of business to be conducted in and out of the grounds. In a spacious tent the roll of committees was called, where they were introduced to each other, and then proceeded to their duties. A building was erected for the Floral Department, and dedicated as "*Flora Hall*." This was filled with things "beautiful to behold," and with those who added a new grace and beauty to every thing around them.

Then there was another appropriated to the *Department of Mechanics*. We have not space to enumerate the fine works of mechanical skill which were here exhibited. Among them were fine specimens of the handy work of our friend PARTRIDGE, in steel forks, rakes, &c., and of the famous plows, horse hoes, and other implements of Ruggles & Co.

The left centre of the grounds was occupied by a mammoth gallery, furnished with seats sufficient for at least 2000 persons, and built with special regard to substantiality. To this gallery a charge of twelve-and-a-half cents was asked for admission, and was paid by thousands.

This stand commanded a view of the trotting course, which lay to the extreme left of the arena. The course was of an oval form, and carefully prepared for the use for which it was designed, by grading, watering, and rolling its surface. It was half a mile in circumference, and the whole circuit could be taken in at a single glance.

Water was plentiful on the grounds, both for man and beast, brought in pipes 160 rods, forced up by pumps, acted on by an ingenious contrivance of an over-shot wheel. Halliday's Patent Wind Engine, of which we have spoken heretofore, was effected in the centre of the field, and was an attractive feature.

Among the stock we particularly noticed the imported *Devon* bull, Comet, owned by ISAAC STRICKNEY, of Grafton. He is 6 years old, and a very fine animal—one worthy to be recommended

to the breeders of that stock. Messrs. W. R. SANFORD, of Orville, DANIEL DAVIS, of Springfield, and S. D. WALBRIDGE, of Bennington, and some others, presented stock of this blood.

Of *Durhams*, or Short Horns, the bull *Ajar*, exhibited by SYLVESTER SMITH, of Wilmington, was decidedly the finest animal of that breed on the grounds. He is 4 years old, weighs 2,290 pounds, and is made up so as to please the critical eye. Messrs. A. L. BINGHAM, of West Cornwall, E. D. HUBBELL, of Bennington, J. C. LAWRENCE, of Brattleboro', E. J. BARRINGTON, of Whitingham, and others, also had stock of this breed.

There were few *Alderneys*. Mr. J. BIRD, of Greenfield, Mass., had a fine bull, 2 years old, and 2 cows, a heifer, and a calf. The cows were small and thin, but were undoubtedly pure.

Of *Herefords*, the only representations were a cow and calf, shown by A. L. BINGHAM, of West Cornwall.

Working Cattle. The exhibition of this class was imposing. The number of entries exceeded 200 yoke. The Brattleboro' team, 48 yoke, passed in review as a single team. Among them could be seen tinges of the blood of the Durhams and Devons with our mixed breeds.

Of *Fat Cattle*, a pair driven in by Mr. FAIRBANKS, of Springfield, Mass., weighed six thousand pounds, and were much admired.

Of *Swine* there were a few fine specimens. A Suffolk boar and sow, presented by ISAAC STICKNEY, of Boston, were models of their kind. The boar was made up as near the pattern of perfection as we shall seldom be likely to see. We have seen a finer shaped sow, but not often. A pair of the improved Essex swine, the only ones on the field, were presented by SOLOMON W. JEWETT, of Weybridge. They were black, and possessed fine proportions.

The *Sheep* included several varieties,—Spanish, French, Silesian, Saxon, with all manner of crosses. Spanish merinos were exhibited by Messrs. A. L. BINGHAM, N. A. SAXTON, of Vergennes, VICTOR WRIGHT, of Cornwall, JESSE HINDS, of Brandon, S. STICKNEY, D. & G. CUTTING, and J. T. & V. RICH, of Shoreham, C. D. SWEAT, of Bennington, and MARK CRAWFORD and SAMUEL WHEAT, of Putney. A few Leicesters were exhibited by A. V. STOCKWELL and GEORGE WINTERBOTTOM. Smyrna and Native, by H. S. WALBRIDGE; and Silesian, French, and Spanish and French, by GEORGE CAMPBELL, of Westminster.

Fruits and Vegetables were not numerous, though some fine samples in each department were exhibited. We noticed a fine basket of *Sweet Potatoes*, and a variety of grapes, by A. DUTTON, of Dummerston. There was a squash, weighing 180 pounds, and a cousin about as large. Apples, pears, peaches and plums, were not largely represented.

The Address was delivered by CHARLES THORNTON RUSSELL, of Boston, and a Reporter says, like all his productions, bore the stamp of eminent ability in conception and expression. Its subject was "*The Emancipation of Labor*."

Capital charcoal sketches of the Black Hawk and Morgan horses were framed and elevated, one on each end of the spectator's gallery. They were by Mr. LARKIN G. MEAD, of Brattleboro', and a young artist of great promise.

The grand feature of a Vermont State Fair is its *Horses*. We cannot speak of these in detail—lovers of the noble animal must go themselves and see. They were trotted in imposing parade round the moist and level course, and thousands of bright eyes gazed on them as they passed the immense gallery. The procession was headed by a true son of the old Woodbury Morgan, and followed in order by the Woodburys, Bulrushes and Shermans—the latter being by far the most numerous.

But the crowning glory of the Show was in its excellent arrangements—nothing that could add convenience or comfort was omitted. The place for the Address was chosen and prepared with good taste. The officers were attentive and polite to every body, and every body had their best bow for the officers. Ladies, in great numbers, joined in the festivities of the occasion, and gave a new grace and charm to the whole. Mr. HOLBROOK, the President, mingled everywhere with the throng, and had a kind word for all. We could speak of the hospitalities of his mansion, and of the distinguished guests we met there; but, as that would not be strictly agricultural, and might be considered an invasion of the sanctities of private life, we forbear. All were eloquent in praise of the mode in which the exhibition was managed, and the facilities which had been furnished for its enjoyment.

It was estimated that 25,000 persons visited the Show, and out of that vast number not an ill-behaved or intoxicated person did we see.

For the New England Farmer.

LIGHTNING RODS.

FRIEND BROWN:—I have noticed, in several of the last *Farmers*, discussions relative to lightning-rods. My ideas differ somewhat from any who have written for your journal on this subject; and they were imbibed from the teachings of one of the best, if not the best Professors in this country. In his lectures on electricity, P. was very particular to call the student's attention to this subject; his theory was, that a rod would only attract its area. A rod ten feet high would protect that number of feet each way. A rod on a ridge would reckon its attractive powers from the distance from the base of the roof to the top of the rod. When more than one rod is required they should be near enough together to meet when laid down; and any number less than this.

might attract some, but not enough to bring it to the rod, and consequently the building would be more exposed than if there were no rods at all. I think isolators are not essential. Iron is a far better conductor of electricity than wood, and will not leave it if there is a good chance for it to escape when it reaches the bottom. It is better that the ends or splices should be riveted than linked or screwed together, and above all things have the bottom end pointed and in a moist place. Isolators are good for nothing if the bottom is not arranged properly; we often see telegraph posts all split to pieces notwithstanding their isolation, from the fact that the wire is not large enough to conduct it off.

Let me advise all who wish to put up rods to put up enough; have them of good size, square or sharp edges, and look well to your terminations, having them terminate in water, tan or moist earth.

S. W. CURTIS

Globe Village Sept. 7, 1854.

AGRICULTURE AND THE PROFESSIONS.

When young men are about completing their education, they very wisely ask themselves what they shall do. A few, scanning the various pursuits, luckily hit on something in harmony with their tastes, while the greater part look only to the professions as the legitimate sphere of educated men. Now this conclusion is all wrong. A college education aims at a professional life no more than any other; but only at a general discipline and culture of mind which may be applied to all pursuits. There are, no doubt, some in each class, who are adapted to and will honor any of the professions; but the greater part are not, and they enter them rather because they are honorable, than in hopes of honoring them. But we have little sympathy with those luminaries which seek to shine by a reflected light. We have been taught to believe that the man should honor his office, not the office the man: and that it is better to move at the head of even a humble calling, than follow in the rear of a dignified profession. We would rather raise potatoes which somebody will eat, than make speeches which no one will hear, or write books which no one will read.

But if these young gentlemen will carefully look around, they will perhaps find other avenues to wealth and distinction besides the professions. Take, for instance, agriculture—not simply the art of plowing the ground, but agriculture viewed in all its practical and scientific bearings, and they will possibly find scope for the display of at least moderate capacities. Indeed, if we mistake not, some enter the professions, who would not find a waste of talent in agricultural pursuits, and who are certainly quite as well suited to them. But so many young men are captivated with the idea of professional or political titles and life, that they overlook what they call the humbler vocations. So away they go, talking of Robert Halls and Daniel Websters, between whom and themselves there is no more comparison than between the Alps and an ant-hill. We would not be thought to underrate the professions by any means; but we believe strongly in an adaptation, a fitness for things. If a man has not a

natural capacity for one pursuit, let him take up another for which he has a natural capacity. Better handle the plow with grace, than make a stupid argument.

Nor yet does this avocation preclude access to political distinction, to which so many young men aspire. We know some farmers who stand as good a chance for office as many of their professional brethren, and who are as well able to flourish as delicate a hand, or quiddle as accurately, or talk as honiedly; but in good sense and sound judgment—the essential elements of a man—they are by no means inferior. We always like to see such men—good honest souls!—who lean not on the dignity of their profession, but on themselves. Such men are at once the strength and pride of the country.

Let not young men, therefore, think a profession the “*sine qua non*” of human greatness, but let them cast about and see what they are fitted and have a taste for. They will then go to work thoroughly and earnestly, and be sure to succeed, while on the other hand, they will most surely fail.—*American Agriculturist*.

WHY IS THE FARMER DISCONTENTED?

Those who have been engaged in mercantile, mechanical, commercial or other pursuits in the early part of manhood, but who have left those pursuits for the cultivation of the farm, are usually contented with the change, particularly if they gained some knowledge of the practice of agriculture in boyhood. It is mostly among those born and bred on the farm, who have little knowledge of the necessary care and unceasing labor in other pursuits to insure success, where men and women labor grudgingly; from motives of duty and necessity, but without those agreeable realizations which alone can make labor pleasant. It is said that as a people we are restless; never satisfied with the house we have erected, the farm we have subdued and cultivated, the ship we have sailed, or the fortune acquired.

We have so far been providing for our *physical* wants, in the agricultural community, without taking into account the fact, that the *mind* demands aliment as well as the body, and that it must be supplied or it will do one of two things: it will sicken by becoming indifferent to its own interests and the world around it, and sink, and die in idiocy; or it will embrace violent extremes of imaginary duties, and seek, by ever-varying change, that, mental sustenance, which it has failed to find in quiet and homely scenes.

This is the prime cause of discontent in rural life. The physical powers are occupied by a routine of duties supposed to require little mental effort, while those of the mind are disregarded and unprovided for. While the *body* labors, the *mind* has little sympathy with it—the forces of the man are divided, and discontent, and disquiet are the consequence.

We shall only speak of this evil among the rural population—the farmers, and their sons and daughters, and in order to do this, we ought first to speak of the dignity and importance of agriculture as an employment.

Of the importance of agriculture as the means and chief source of subsistence to all animal life, it is scarcely necessary to enlarge. The fact must be evident to all, that with the cessation of two or three successive crops, the races must become extinct; a fact which should teach us our obligations to Him who holds the destinies of nations in his hands, and to whom our profound gratitude is ever due. But the *moral consequences* of agricultural employment are less obvious, and require more consideration.

Agriculture means field culture, and its importance is obvious, not only by affording the direct supply of our greatest wants, but as the parent of manufactures and commerce. Without agriculture there can be neither population, nor civilization. Hence, it is not only the most universal of arts, but that which requires the greatest number of operators; the main body of the population in every country is employed in the pursuit of agriculture; and the most powerful individuals in almost all nations derive their wealth and consequence from their property in land.

Recent discoveries in Chemistry and Physiology have led to most important improvements in the culture of plants, and the breeding and rearing of animals; agriculture is, in consequence, no longer an art of labor, but of *Science*: hence the advantage of scientific knowledge to agriculturists, and the susceptibility in the art of progressive advancement. “Agriculture,” Marshall says, “is a subject which, viewed in all its branches, and to their fullest extent, is not only the *most* important, and the most difficult in rural economies, but in the circle of human arts and sciences.”

Such is the *importance* of agriculture to us all. It cannot lack *dignity*, for it is the mother of all other arts and sciences. It was not too low for Cato, Cincinnatus, and Washington; and it never can be too low for the most exalted mind on earth.

Discontent, then, does not spring from a want of importance and dignity in the occupation, but because *that occupation is not understood*. Farming should not be looked upon as the end of life, merely as a means of subsistence; this, as well as all other pursuits, should be adopted with the view of enabling men not only to improve and beautify the earth, but to cultivate the moral, intellectual, and social powers, and to fill, according to their capacity, their proper station among their fellow-men. It should not tend to make men mere machines, who toil for the sole purpose of gratifying their appetites; but it should

elevate and refine, to the highest degree of perfection, the better faculties of our nature.

The profits of productive farming would, when conducted scientifically, enable the farmer to accumulate wealth, and enjoy all the comforts and luxuries of refined life. Every community could be made up of the best society—every family could have a good library, and its accomplished sons and daughters; farmers' sons need not leave the favorite pursuit of their fathers, and go into the learned professions, from the erroneous idea that they are more honorable or profitable. Farmers' daughters need not despise the delightful and healthful employment of the dairy, the kitchen, or the loom, and seek elevation in the miserable pursuits and fashions of the city.

Nothing conduces more to the elevation and refinement of the mind than the study of nature; the man who holds frequent communion with nature, and studies and obeys her laws, is always made a better and happier man.

But it is said that the working man cannot study; that study and labor are incompatible and uncongenial. Washington and Franklin both possessed that kind of knowledge which enabled them to be eminently useful to the world, and yet both were emphatically laboring men; laboring not only in directing others, but with their own hands. Many other signal examples might be cited to strengthen the point, were it necessary.

"Manual labor," says the *Phrenological Journal*, "when not excessive, invigorates the body, and rouses the mind. Muscles strengthened by exercise, and a brain refreshed by pure blood, enable the mind to conceive with clearness, and act with vigor and force. The delicate lark soars high, but soon falls; it is only the eagle, with broad and strong wing and clear eye, that can sustain long flights in the upper air, and gaze at the sun.

"The man with a learning mind, who digs the ground, or sows the seed, makes rapid progress. He sees the benevolence of God in every opening bud and blushing flower. He learns lessons of utility, of design in the natural world, and with a soul enlarged, he applies to books and art the exponents of other men's minds,—and looks into his own to discover the laws by which it is governed, and the links by which he is bound to his fellow-men.

"The working man, in all ages of the world, has been more successful in doing good, in advancing the interests of humanity, than a man learned only in book knowledge. The latter may desire to do as much, but never can accomplish it, being ignorant of the material on which he is working.

"As the world advances, its workers take a higher position; the dignity of labor becomes apparent. The time draws near when he who does nothing will be nothing, and when there will be no aristocracy but that of labor; no noblemen but the workers."

But the worker must also be a *thinker*; he must become nature's ardent student, and work out, and think out the wonderful processes ever going on in her strange crucible. He must not be discouraged that he knows so little yet of those things which are constantly under his observation; that the knowledge man has accumulated in all the generations of his existence, forms but a small mound in comparison with the unknown.

A FARMER'S WIFE I'LL BE.

I'm a wild and laughing girl, just turned of sweet sixteen,
As full of mischief and of fun as ever you have seen;
And when I am a woman grown, no city beau for me—
If e'er I marry in my life, a farmer's wife I'll be

I love a country life, I love the joyous breeze,
I love to hear the singing birds along the lofty trees;
The lowing herds and bleating flocks make music sweet for me—
If e'er I marry in my life, a farmer's wife I'll be.

I love to feed the chickens, and I love to milk the cow,
I love to hear the farmer's boy a whistling at his plough;
And fields of corn and waving grain are pleasant sights to me—
If e'er I marry in my life, a farmer's wife I'll be.

I love to see the orchards where the golden apples grow,
I love to walk in meadows where the bright streamlets flow;
And flowery banks and shady woods have many charms for me—

If e'er I marry in my life, a farmer's wife I'll be.

Let other girls who love it best, enjoy the gloomy town,
'Mid dusty walls and dusty streets, to ramble up and down;
But flowery fields, and shady woods, and sunny skies for me—
If e'er I marry in my life, a farmer's wife I'll be.

FACTS FOR BUILDERS.

One fact is, that a square form secures more room with a given cost for outside walls, than any other rectangular figure. Great length, and little width may afford convenient rooms, but at an increased expense.

Another fact is, that ventilation is an essential in a human dwelling. No other consideration should exclude this. The halls, windows, and doors, should be so situated with regard to each other, that a full draught of air can be secured, at any time, in the summer season, by day and by night, through the whole house. The stories should also be sufficiently high to afford a sufficiency of air in all the rooms. Nine feet is a good height for lower rooms, and eight for upper. Bed rooms should also be larger than they commonly are. Great injury to health is the result of sleeping in small, close apartments.

The third fact is, that a steep roof will not only shed rain and snow far better than a flat one, but will last immensely longer, at the same time that it secures increased room for chambers, or garret.

The fourth fact is, that a chimney in or near the centre of the building will aid to warm the whole house, while if built at one end or side, the heat will be thrown out and lost.

The fifth fact is, that a door opening from the outside into any principal room, without the intervention of a hall or passage, costs much more than it saves, in the free ingress of air into it.

The sixth fact is, that the use of paint is the best economy, in the preservation it affords to all wood work.—*Prairie Farmer.*

For the New England Farmer.

MAKE YOUR GIRLS INDEPENDENT.

BY HENRY F. FRENCH.

Everybody in New England knows exactly what to do with a boy. Give him, as a matter of course, the best education you can afford, and whether he is poor or rich, prepare him for some business, some regular useful business in life, so that whatever be the turn of Fortune's Wheel, he may be independent. A good education, and a profession or trade, without property, is enough for him—enough to place him beyond the charities of a cold world, enough to give him hope and courage and assurance of success in life.

But what is to become of the daughter? Do we consider this question sufficiently? Is not all New England grossly negligent on this point?—Does the public voice answer this question satisfactorily?

Let us examine the matter fairly. You have a daughter of sixteen, in a family of half a dozen children. You have a small property, a comfortable home, a farm perhaps, are tolerably "well off," worth perhaps eight or ten thousand dollars. You are still a young man, at least not so very old, that you need necessarily die for some years yet. Suppose this young lady has progressed as well as most girls, in her studies. She can read and write respectably, has cyphered as far as square root, can read French a little, though she cannot speak a sentence of it correctly. She can play on the piano, so that a person of common discernment can distinguish her Old Hundred from the Battle of Prague, but has developed no very decided taste for music. Still she is intelligent, active, and promising. Suppose she were, some pleasant morning, to propose the question directly to you, and ask a serious reply, "What do you intend I shall do when my education is finished?" What answer would you make, which should satisfy both you and herself? The probability, perhaps, is, that within ten or twelve years, she may marry; for that is the fate of a majority of ladies.—Still, I think, you would not like to answer her reasonable question by such a suggestion, because such a probability is, after all, a vague uncertainty, and you would be quite unwilling a child of yours should make marriage a matter of necessity, or even of calculation. No, you could not say to her that she has but one chance in life, and that of such a nature, that she cannot seek to avail herself of it.

Can you say to her deliberately, that you have a home which shall always be hers, also, that you have means to maintain her, and that she need take no thought for the future? This is, practically, what most fathers are saying to their daughters, but frequently, with less regard to truth than they profess. Your own life is uncertain.—

Your business enterprises may fail. Is it safe to risk the welfare of others entirely on your own continued prosperity? Besides, is there enough in the subordinate duties which usually fall to the share of a daughter in a family, to fill up the aspirations of human nature, to develop the faculties of the soul? Look at the course of life of grown up daughters in the families about you. They are usually regarded by the mother as children in all matters pertaining to the household. They do not take a share even of the responsibility of the family. If required to do a share of the work, they do it as a disagreeable task, to which a life of ease is far preferable. In the duties of wife and mother, there is enough to occupy the heart, and exercise the intellect of an educated woman; but the mere drudgery of housework, the cooking and mending and scrubbing, especially in a subordinate position, have in them nothing peculiarly attractive or ennobling to anybody.—Usually, however, the daughter is not a working bee in the hive. She is better educated than her mother, perhaps, and not half so good a housekeeper, and so she naturally takes to fashion and light literature, receives calls and returns them, dusts the parlor for her share of the housework, works worsted cats and dogs for intellectual discipline, and wears a stylish bonnet to church by way of morals and religion. Without a definite object, how can she be expected to rise early in the morning, or to take an active interest in the affairs of life.

But the question recurs, what better can be done? What shall be done that our daughters may have courage to look the future calmly in the face, and feel that their position is in some measure, dependent upon their own exertions?

A definite hope for the future, can alone make a rational being happy. *Give every child, then, male or female, an education for some business.* The discipline of acquiring it will be, in itself, salutary, and the consciousness of possessing it will at all times give dignity and independence to the character. Whatever your position in society, educate your daughter for some business in life, educate her according to your means and condition, and according to her tastes and capacity. The "sphere of woman," which has been always reduced far below the hemisphere which all accord to her as a right, includes, certainly, the whole range of *teaching*—in letters, in science, in music and drawing, and whatever else is learned in our schools, "Woman's Mission" surely is *to teach*, and the demand for female instructors, of a high order, is by no means supplied. Academies and high schools are now paying salaries of five hundred and a thousand dollars to college graduates, as mere temporary teachers, and would be glad to exchange them for well qualified fe-

males, who would enter upon their duties with some probability of permanency. Then there are the thousands of district schools, which are fast changing from the hands of college boys, to the "milder influences" of the gentler sex. If your daughter has a decided taste for music, or any ornamental acquirement, assist her to appreciate the gift which Heaven has offered her. Make her excel in something which the world deems excellent, and her superior attainment will always command respect, and the means of honorable subsistence.

But there are many who cannot afford the means, thus to qualify their daughters for teachers. What shall they do? I answer, believe that labor is honorable, and teach them a trade, or manual occupation of some kind. I have never chanced to live in any place, where dressmakers and milliners did not keep the ladies of the village in complete subjection, dealing out their favors of dress-fitting and bonnet-trimming as if they were pearls and diamonds. I venture to say, sir, to you who are reading this paper, that you can build a forty-foot barn in less time, than your wife and daughters can procure their winter hats. Teach every young lady to cut and make her own dresses, and if you go further, and educate her to the trade, her support in life is secured. The printing-offices, the counting-rooms of shops, the manufacturing establishments of various kinds, are furnishing respectable employment to females, and gradually the "area of freedom" for woman's labor and talent, is enlarging everywhere in New England. The means of education have not yet been supplied to boys and girls alike. Even Boston, I believe, which affords to every boy, at the public cost, a four years' course in a Latin or High school, gives to girls as an equivalent, only one additional year in the grammar schools.

New England has her colleges—her Harvards, her Yales, her Dartmouths, for boys, but nothing of the kind for girls. But these wants will soon be met. Horace Mann, whose opinion is entitled in this matter to higher authority, perhaps, than any other individual in this country, has accepted the Presidency of a college in Ohio, where the sexes enjoy equal advantages of instruction.

The want of the means to give to girls, at the public expense, the same thorough and systematic education as boys are receiving at our colleges, is the great defect in our New England system of instruction. Notwithstanding this want of opportunity for education, a great share of our best writing of a literary character, both in books and magazines, is from the pens of ladies, and he who doubts the capacity of the better-half of creation, for any literary labor, deserves to have his ears pulled by Fanny Fern, and to be chased among slave-catchers in Mrs. Stowe's next edition of Un-

cle Tom's Cabin. *Education for all, according to the capacity of each, is the true law of love and of progress.*

Essex, N. H., Sept., 1854.

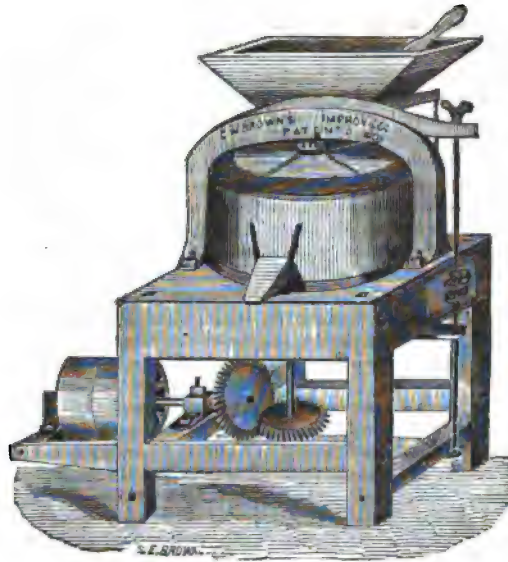
THE LOCUST TREE BORER.

The locust trees, in and around Cleveland, have for the last few years suffered greatly from this insect, many of them being killed, and all being more or less disfigured; young trees especially are exposed to their attacks. It is the *Clytus flavius* of Fabricius. In its perfect or imago state, it is a beautiful beetle about three-quarters of an inch in length; the males rather smaller.—The color is a velvety black with transverse yellow bands, three on the head, four on the thorax, and six on the wing covers, the third being bent in the form of a W. The legs are reddish, and the antennae dark brown. In the early part of September they come forth, and during that month are to be found in great numbers on the flower of the Golden rod, on the Cuyahoga flats, under the University heights. I have seen them in hundreds feeding on the pollen of this plant. They are also to be seen coming up and down the trunks of the locust trees, singly, in pursuit of their mates or rivals, or more commonly paired. The female lays little clusters of seven or eight white eggs, in the cleft of the bark. In a short time they are hatched, and the little grub immediately begins to eat into the soft bark and wood. Their furrows are winding, generally in an upward direction yet, sometimes, I have seen holes bored entirely through the trunk of small trees. In the winter they become torpid, but the warmth of spring awakens them to renew the work of devastation, which they make known by the saw dust dropped from their holes.

A little trouble on the part of the owners of shade trees, would to a great extent protect them from the ravages of this insect; during the time of pairing, they are easily caught by hand and destroyed, and can be done by children, thus hindering the deposition of eggs. As a preventative also, the trunk and larger branches of the trees, in the early part of September, should be covered with a thick coat of white-wash, well worked into the cracks of the bark. This should be done before the beetle begins to deposit its eggs, and if repeated every season, it will take care and not entrust its property to a bed of lime, as it would not thrive on so caustic a diet.

The congeners of the *Clytus* are numerous, and inhabit many of our forest trees, such as the Maple, Ash, Hickory, Thorn, &c. Some attack the fallen, or cut timber. Their greatest enemy is the Wood-pecker who destroys immense numbers.—Ohio Farmer.

A SEED FARMER.—An honest son of Erin, who had saved money enough by his industry to purchase a small farm, undertook to manage it himself. He accordingly bought his seeds at the seed store, and planted them all done up in papers—just as they came from the store. A bystander who observed him, began to laugh at him, and told him he was doing wrong. "Ah, let me alone for that," said Pat, "I am making a seed garden: did ye never see seeds grow all papered and labelled just as they sell them in the shop?"



BROWN'S IMPROVED PATENT GRIST MILL.

The manufacturers confidently recommend this article to the notice of practical men who are engaged in, or about to establish the flouring or mealing business, or who wish to erect a mill at a comparatively small expense, for occasional use. Among the numerous improvements that have appeared, there are, perhaps, none, either for simplicity, efficiency, durability, or economy, that surpass it, and as far as their experience has gone, they are led to believe it is the best portable mill, for flouring meal and grinding grain, corn, salt, plaster and spices extant. It is composed of the best French burr stones; and it is substantially built, easily kept in order, and can be attached to the requisite power with great facility.

The proprietors supply this mill, of proper dimensions for water, steam, or horse power, to order. As there are many in operation in the New England, and other States, which can be referred to, a farther description here is unnecessary.

One of the mills may be seen at the warehouse of Messrs. Ruggles, Nourse, Mason & Co., who have them for sale.

SIGNS AMONG THE COLLEGES.—Professor Goodrich made a speech at Milwaukee during the grand excursion, in which he stated that Yale College was opposed to slavery, and the faculty all of one mind on the subject, and wished the fact to be known North and South. It is said that an unusual number of Southern students have offered themselves this year.

Among the commencement exercises the present year at different colleges, Frederick Douglass

addressed the literary societies at Western Reserve College; Henry Ward Beecher, at Woodville; Wendell Phillips, at Union; J. P. Thompson, at Andover; and Wm. H. Seward, at Yale, where Geo. W. Perkins also preached the *concio ad clerum*. The alumni at Harvard, chose Charles Sumner for their Vice President; Wabash College conferred the honorary D. D., on Joshua Leavitt; and Yale College the LL. D. on W. H. Seward. —*N. Y. Eve. Post*.

SOWING GRASS SEED IN THE FALL.

EDS. RURAL:—As I believe much information may be gained by farmers, in frequently interchanging thoughts and experience in relation to the various subjects, which pertain to their vocation, I propose saying a few words in relation to the inquiries of your correspondent J. B. P. in the last No. of the *RURAL*, regarding the seeding down of land. Your correspondent states that he cannot get "clover or herds grass to 'catch,' when sown with oats, according to the time-honored custom," which, I suppose, is sowing it with the grain in the spring. Farmers are generally quite indisposed to adopt any new manner of performing the routine of their labors,—but the repeated failures in my own case, and that of my neighbors, to get land to catch well, when seeded in the spring, induced me to question the correctness of the idea of spring being the best to sow grass seed. After losing a good many bushels of seed during the past five or six years, by sowing with oats in the spring, I concluded, last fall, that I would try the experiment of seeding six acres in the fall; and though the trial of any new mode of farming for one year only, is not sufficient to establish its correctness or incorrectness, yet the success which attended the experiment was most satisfactory, for I cut this year my heaviest grass from the field thus seeded. I have not be-

fore during several years past, obtained so good grass the first year after seeding; and I attribute the cause entirely to the fact of seeding in the fall.

It is perfectly reasonable to suppose, that seed sown in the fall would be more likely to do well, than if sown in the spring, because it is well known that grass seed self-sown or deposited by grass left standing, almost always catches and grows better, than that sown in the spring. The main reason why it does not succeed when sown with oats in the spring is because it cannot withstand the dry weather which we usually have during the summer. Where it can be sown very early, as for instance, with winter wheat, its chances for success are greater; but, even then, I should prefer to seed in the fall.

When sown in the fall, it should be sown in September, or before the fall rains commence, so that it may get sufficiently started to withstand the winter.

That which I sowed in the fall was sown on stubble, without any dragging; nor do I think it needs any, for it came up very thick and nice.

N. M. CARPENTER.

Ellington, N. Y., August, 1854.

Rural New-Yorker.

HENRY WARD BEECHER ON TREES.

Every one who has read the life of Sir Walter Scott, knows his love of trees. He used to say that of all his compositions, he was most proud of his compositions to make trees grow. There is yet at East-Hampton, flourishing in a hearty age, an orchard set out by the hands of my father. And we have heard him say that after an absence from home, the first impulse, after greeting his own family, was to go out and examine each tree in his orchard, from root to top. No man ever planted a tree or loved one, but knows how to sympathize with this feeling. Oliver Wendell Holmes spends his summer months upon a beautiful farm near Pittsfield, on which are half a hundred of the original forest trees, some of them doubtless five hundred years old; trees that heard the revolutionary cannon (or heard of them,) and before that the crack of the rifle in the early Colonial Indian wars, when Miahcom, with his fugitive Pequots, took refuge in the Berkshire hills. It is said that Dr. Holmes has measured with tape-line every tree on his place, and knows each one of them with intimate personal acquaintance. * *

To the great tree-loving fraternity we belong. And our first excursion in Lenox was to salute our notable trees. We had a nervous anxiety to see that the axe had not hewn, nor the lightning struck them; that no worm had gnawed at their root, or cattle at their trunk; that their branches were not broken, nor their leaves falling from drought. We found them all standing in their uprightness. They lifted up their heads towards Heaven, and sent down to us from all their boughs a leafy message of recognition and affection. Blessed be the dew that cools their evening leaves, and the rains that quench their daily thirst! May the storm be as merciful to them, when in winter it roars through their branches, as is a harper of his harp. Let the snow lie lightly on their boughs, and long hence be the summer that shall find no leaves to clothe these nobles of the pasture! First in our regard, as it is first in the

whole nobility of trees, stands the white elm; no less esteemed because it is an American tree, known abroad only by importation, and never seen in all its magnificence, except in our own valleys. The old oaks of England are very excellent in their way, gnarled and rugged. The elm has strength as significant as they, and a grace, a royalty, which leaves the oak like a boor in comparison. Had the elm been an English tree, and had Chaucer seen and loved and sung it, and even Shakspeare, and every English poet hung some garlands upon it, it would have lifted up its head now, not only the noblest of all growing things, but enshrined in a thousand rich associations of history and literature. Who ever sees a hawthorn or a sweet-briar (the eglantine) that his thoughts do not, like a bolt of light, burst through ranks of poets, and ranges of sparkling thoughts which have been born since England had a written language, and of which the rose, the willow, the eglantine, the hawthorn, and other scores of vines or trees have been the cause, as they are now and for ever the suggestions and remembrancers? Who ever looks upon an oak, and does not think of navies; of storms; of battles on the ocean; of the noble lyrics of the sea; of English glades; of the fugitive Charles, the tree-mounted monarch; of the Herne oak; of parks and forests; of Robin Hood and his merry men, Friar Tuck not excepted; of old baronial halls with mellow light streaming through diamond-shaped panes upon oaken floors, and of elaborate carved wainscootings? And who that has ever travelled in English second-class cushionless cars has not other and less genial remembrances of the enduring solidity of the impervious, unelastic oak? One such oak I have, and only one, yet discovered. On my west line is a fringe of forest, through which rushes in spring, trickles in early summer, and dies out entirely in August, the issues of a noble spring from near the hill-side. On the eastern edge of this belt of trees stands the monarchical oak, wide branching on the east toward the open pasture and the free light, but on its western side lean and branchless from the pressure of the neighboring trees; for trees, like men, cannot grow to the real nature that is in them when crowded by too much society. Both need to be touched on every side by sun and air, and by nothing else, if they are to be rounded out into full symmetry. Growing right up to its side, and through its branches is a long wifely elm—beauty and grace embosomed by strength. Their leaves come and go together, and all the summer long they mingle their rustling harmonies. Their roots pasture in the same soil, nor could either of them be hewn down without tearing away the branches and marring the beauty of the other. And a tree, when thoroughly disbranched, may, by time and care, regain its beauty. * * *

Upon the crown of the hill, just where an artist would have planted them, had he wished to have them exactly in the right place, grew some two hundred stalwart and ancient maples, beeches, ashes, and oaks, a narrow belt-like forest, forming a screen from the northern and western winds in winter and a harp of endless music for the summer. The wretched owner of this farm, tempted by the devil, cut down the whole blessed band and brotherhood of trees, that he might fill his pocket with two pitiful dollars a cord for the wood! Well, his pocket was the best part of him. The

iron furnaces have devoured my grove, and their huge stumps that stood like gravestones, have been cleared away that a grove might be planted in the same spot for the next hundred years to nourish into the stature and glory of that which is gone. And in other places I find the memorial of many noble trees slain; here a hemlock that carried up its eternal green a hundred feet into the winter air; there a huge double-trunked chestnut, dear old grandfather of hundreds of children that have for generations clubbed its boughs or shook its nut-laden top, and laughed and shouted as bushels of chestnuts rattled down. Now the tree exists only as loop-holed posts and weather-browned rails. I hope the fellow got a sliver in his finger every time he touched the hemlock plank or let down the bars made of those chestnut rails.

What, then, it will be said, must no one touch a tree! must there be no fuel, no timber? Go to the forest for both. There are no individual trees there, only a forest.—*N. Y. Independent.*

FARM OF HARVEY DODGE, ESQ.

OF SUTTON, MASS.

On the 14th July, we had the pleasure of passing over Mr. Dodge's farm, looking at his crops, and of observing his modes of operation in its several departments. The farm is about seven miles from Worcester, and on one of that beautiful succession of hills which prevail in that part of the State. The soil is of granite formation, springy, bravely resisting the present severe drouth, and when once reclaimed and laid to grass, the most permanent and fertile land we have.

The young orcharding on the farm is thrifty, just in bearing, and extremely promising. Many of the trees, but seven year's set, being full of large and fair fruit. The barley had been harvested, but its representative stubble showed a strong growth, which I was informed headed and filled up well. About two acres of onions promised a return of four to five hundred dollars! Cabbages were rampant, and potato tops appeared well, but we did not go below to see how they were there. Several cows graced the yard, whose fine appearance would be noticeable by the most indifferent. One among them, a Devon, it would be difficult to equal. A young Devon bull had also fine proportions, and promises to become a valuable animal. A noble stack of English hay stood near the barn, containing some fifteen tons, and so compactly laid as to make it difficult to withdraw a handful. Ranged against the stone walls, and convenient to the buildings, were about 400 barrels of vinegar, made from the juice of the apple. This we looked at and tasted, and found it as pure as the air itself upon the Sutton Hills. There was a pervading air of neatness and order, in and out of doors, and thrift undoubtedly follows the orderings of the proprietor.

But the chief point which attracted our attention was his operations in underdraining. On a

field fronting the house, and containing 25 acres, he had laid 600 rods of drainage! A portion of this field was still in the condition in which he originally found the whole. It is situated on a high hill, gently sloping to the north-west, and was covered with loose and fast stones, and all the coarse and hardy plants with which such land is usually made "unprofitably gay"—such as various wild grasses, johnswort, hard-hack, life-everlasting, golden-rods and cat-tails. The surface was uneven and springy, and cold, the water oozing out in every direction and collecting in little pools in all the low places. Some attempt at reclaiming had been made on a lower portion of it, and timothy and red-top had been introduced. But these had vainly struggled against the influences of the cold spring water ever flowing down upon it from above, and finally gave up the conflict in despair—the natural grasses again assuming their place.

After removing the cross walls—for the field was originally divided by several cross walls—and using the stones, together with as many from the surface as were wanted for outside fencing, the remaining large stones were dug under and dropt below the reach of the plow. Trenches were then cut sufficiently wide and deep to receive the smaller stones. Some of these trenches find an outlet on a lower portion of the field, and irrigate several acres of it, while the water from the others is carried across the highway and made to irrigate a pasture, and thus more than trebling the amount of feed obtained upon it before this course was adopted.

In reclaiming a portion of this field, an experiment was made in *trenching*. The depth to which the earth was moved, we do not recollect, but the effect is now—although several years have elapsed—as marked as it was the first year; the grass being larger, and having a more lively and darker green, than on any other spot of similar ground.

For a successful, extensive, and complete illustration of the advantages resulting from thorough draining, we would refer the reader to this field.

INSTRUCTION IN AGRICULTURE.—In the kingdom of Prussia there are five Agricultural Colleges, and a sixth is about to be opened; in these are taught, by both theory and practice, the highest branches of science connected with the culture and improvement of the soil; of Agricultural schools of a more elementary order there are ten; there are also seven schools devoted to instruction in the management of meadow lands; one for instruction in the management of sheep; and there are also forty-five model farms, intended to serve in introducing better modes of agriculture; in all, seventy-one public establishments for agricultural education, not to mention others of a kindred nature, or those private schools where the art and science of good farming are taught.

Prussia is a monarchy, with fifteen millions of

people. New York is a republic with three millions, and a territory which though not quite half as large, is richer and better situated, with means of transportation incomparably superior. Prussia has *seventy-one* public establishments to instruct the people in farming, the science of sciences and the art of arts. New York has not one; and the proposition to establish a single Agricultural College has again and again been voted down in her Legislature. Ought so shameful a contrast to exist between that monarchy and this republic?—*N. Y. Tribune.*

VERSES FOR THE YEAR 1900.

Tell John to set the kettle on,
I want to take a drive—
I only want to go to Rome,
And shall be back at five;
Tell cook to dress those humming birds
I shot in Mexico;
They've now been killed at least two days,
They'll soon be *un peu* *haut*.

And Tom, take you the gold-leaf wings,
And start for Spain at three—
I want some Seville oranges,
"Twixt dinner-time and tea;
Fly round by France and bring a new
Perpetual motion gun,
To-morrow with some friends I go
A hunting in the sun.

The trip I took the other day,
To breakfast in the moon,
Thanks to my Lord Bellair, he
Spoiled my new balloon;
For, steering through the milky way,
He ran against a star,
And turning round again too soon,
Come jolt against my car.

But Tom, you get the car repaired,
And then let Dan and Dick
Inflate with ten square miles of gas,
I mean to travel quick;
My steam is surely up by now, —
Pat the high pressure on,
Give me the breath-bag for the way—
All right—hey—whis—I'm gone.

FALL AND SPRING TRANSPLANTING.

A correspondent objects to the practice of those "who still continue in the old delusion that fall is the best time for transplanting trees"—stating that "some shrubs, and almost all plants, removed in the fall, when the *sap*, the great supporter of their life, has gone down into their roots, vegetation ceases in them, and they, consigned to a new cold soil, perhaps not a single fibre of the roots taking hold until spring, if, indeed, detached almost, if not entirely, from all nourishment, any life remains, are destroyed by fall transportation. Fruit trees, being more hardy, bear up, but they are forever stricken," &c. In the spring, "if the dirt is wet, and packed solid round the roots, before they are dug, touching or injuring as few of the fibres and roots as possible, and carefully setting in their new bed, vegetation goes straight on," &c.

We give this quotation for the sake of pointing out a very common error, namely, that the *sap* goes down into the roots to winter. Instead of this, the *sap* pervades usually all parts of a tree alike, and while covered with leaves, these keep up

a constant drain or escape. When the leaves fall, although vegetation has ceased, the roots still absorb a small quantity, and as there is no escape through the leaves, the vessels of the tree gradually become filled or distended, so that on the approach of warm weather, stimulating activity, the least wound is followed by a flow of the *sap*. As soon as the new leaves expand, as a general rule, this flow from incisions ceases, in consequence of the drain afforded in another direction.

Now it usually happens that removing the tree in the spring, cuts off in a measure the supply from the roots at the very moment it is most wanted,—an evil quite as great as that resulting from any diminished supply in consequence of fall planting. Our correspondent speaks of the evil of "a new cold soil;"—are we to understand from this that the plant has warmed the bed in which it stood, and that it is chilled, like a human being, by removal to a fresh bed? Is not the "new soil," as relatively cold in spring as in autumn? He speaks of life being "destroyed by transportation"—this must refer to long distances; yet trees may be sent thousands of miles if *well packed*, with nearly or quite the safety attending their removal to the next farm. Ample experience has proved this to be true. Why are we not all allowed to take the same pains in saving the roots and carrying the earth upon them, for autumn as well as for spring transplanting?

But throwing theory aside,—we have in the course of our practice set out many ten thousands of trees of various sizes, both in autumn and in spring, and we are satisfied that more, by at least twenty-fold, depends on a good soil, careful work, and especially on the subsequent culture, than on the season of the year; nevertheless, if it were not for the liability to be thrown out or raised by frost, and the danger to half tender sorts from the cold of winter, we think the advantages would decidedly preponderate in favor of autumn, more especially because it is not accompanied with the check we have already spoken of, at the very moment the trees should commence to grow vigorously. We have never found hardy trees to succeed better, if as well, *other things being the same*, as when carefully dug up in autumn and well laid in till spring, when they were set out, without the above mentioned check.

Shrubs and small plants, if inclining to be tender, are always made more tender the first winter by transplanting; hence they should be either protected, or the work is done in spring. Hardy, early starting perennials, as peonias, pie-plant, &c., should always be set out in the fall; while tulips and many other bulbs require setting a month or two earlier. The practice must be modified by circumstances, climate, and the habits of the various plants.—*Country Gentleman.*

RUNAWAY POND.—Fifty ladies and gentlemen, belonging to Barton, Vt., celebrated the Fourth of July by a picnic in the basin of the celebrated "Runaway Pond," near that village. The *Irasburg Gazette* gives the following description of the spot, as measured by some of the engineers of the Passumpsic Railroad, who were of the party:—

"The water before its escape covered over 100 acres of land being one mile long and 70 rods wide for one-half its length. The greatest

depth of water which escaped was 85 feet. The highway which now passes through the pond is for nearly half a mile from 70 to 80 feet below the old water level. The lowest surface of the bed of the pond is a bog or meadow from 40 to 50 rods wide, and nearly half a mile long, by the side of which the highway is laid. For this whole surface the average depth of water may be called 80 feet. The sod of most of this is very tremulous, and a pole, or even an unlucky foot, once through the sod, goes down without further obstruction to almost any depth. From an approximate estimate, this pond contained 1,988,000,000 gallons, above the level of the bog, and it would take the full discharge of the canal of the Boston Water Works six months to fill it. Such was the size of the pond which in 1810 burst its barriers, and swept almost in a body down the valley."

OSWEGO—ITS MILLS AND BUSINESS.

In the year 1826 the first mill for the manufacture of flour was erected in Oswego, and at the present day there is perhaps no point in the United States, or in the world, where the manufacture of flour is conducted upon so large a scale as in the city of Oswego, together with the mills at the village of Fulton, twelve miles up the river. The first flouring mill in Oswego was built by Messrs. Alvin Bronson and T. S. Morgan, on the east side of the river. Mr. Henry Fitzhugh afterwards also built a mill adjoining, both of which were subsequently destroyed by fire.

From that period the flouring business at Oswego has been gradually increasing in magnitude—slowly at first, but quite rapidly during the last ten years. The destructive fire which occurred here on the 5th of July, 1853, destroyed most of the mills and elevators on the east side of the river. Through indomitable energy, however, they have all been rebuilt, upon a larger and more extensive scale, with all the modern improvements. There are in Oswego, at the present time, sixteen mills, with eighty-four run of stone, capable of manufacturing about nine thousand barrels of flour a day. Add to this the flouring mills twelve miles up the river, and we have an aggregate of one hundred and nine run of stone, capable of making about twelve thousand barrels of flour, and consuming over fifty thousand bushels of wheat per day.

The capital invested in so many mills, the number of men employed in running them, and the capital employed in the purchase of grain to supply them, must necessarily amount to a very high figure. At the lowest calculation, the capital invested in mills and elevators will reach nearly \$1,000,000; the number of men directly employed in running them, and in cooping, will exceed 1,400; and the number of persons deriving support from the labor therein, is not less than 3000.

The hydraulic power of Oswego is immense, and is still more than two-thirds occupied; and at Oswego Fall there is almost an incalculable amount of water-power still unoccupied. The water in the Oswego river is sufficient to drive the mills throughout the year.

The amount of wheat received at Oswego from Upper Lakes and Canada, and the amount of flour shipped by canal, is larger than at any other lake port in the United States. In the year 1853

there were 7,436,391 bushels of wheat received, by lake, at Oswego, of which 1,781,152 bushels were from foreign ports. During the same season there were 853,950 barrels of flour shipped by canal, being 195,596 barrels more than the total shipments from Buffalo. The quantity of flour manufactured at Oswego in 1853 was smaller than the two previous years, in consequence of the destruction of four or five of the largest mills by fire.

We give below a table showing the names of mills at Oswego, their proprietors, run of stone, and number of barrels of flour they are capable of making per day:—

NAMES OF MILLS.	PROPRIETORS' NAMES.	Run of Stone.	Ebls. Flour Per Day.
Empire.....	Doolittle, Irwin & Wright	5	500
Crescent.....	H. C. Wright.....	4	400
Ontario.....	G. L. A. B. Grant.....	6	600
Atlas.....	Geo. Seeley.....	5	500
Palmetto.....	Mollison & Hastings.....	5	500
Huron.....	C. F. Ulhorn.....	4	400
Premium.....	Samuel Beardsley.....	5	500
Magnolia.....	Chas. Smyth.....	3	300
Exchange.....	J. & I. Lewis.....	5	500
Pearl.....	Wm. Lewis.....	5	500
Seneca.....	Merrick & Co.....	13	1,300
Lake Ontario.....	Fitzhugh & Littlejohn.....	6	600
Washington.....	Penfield, Lyon & Co.....	5	500
Schenandoah.....	J. F. Johnson.....	4	400
Eagle.....	T. Wyman.....	5	500
Reciprocity.....	G. & C. Ames.....	4	400
Total.....		84	8,400

The mills at Fulton, which should be added, are as follows:—

NAMES OF MILLS.	PROPRIETORS' NAMES.	Run of Stone.	Ebls. Flour Per Day.
Pratt's Custom.....	Timothy Pratt.....	3	..
Oayuga.....	W. S. Nelson.....	5	..
Genesee.....	Oase & Cheseboro.....	5	..
Telegraph.....	Clark & Pond.....	4	..
Nelson's Custom.....	W. S. Nelson.....	3	..
Voorhees' Custom.....	J. L. Voorhees.....	3	..
Total.....		26	..

The facilities for handling grain in Oswego are also extensive there being ten elevators in all—half the number of which, however, are attached to the mills. The elevating capacity is about thirty-six thousand bushels per hour, and the storage room equal to about 2,200,000 bushels. There are also two or three floating elevators in the harbor, capable of elevating from 1000 to 1500 bushels per hour.—U. S. Economist.

CARRYING FRUIT TO MARKET.

But few days pass at this season of the year, during which may not be witnessed at any of our market-towns, the effect of carelessness in carrying fruit to market. It is well known to all salesmen that, be their wares what they may, the better their appearance, the better will they sell. This fact seems to be entirely overlooked by farmers when carrying their produce, and more especially fruit, to market.

For instance, a farmer having early apples for sale, will shake them from the tree, pick them up, bruised and all, throw them into the box of a lumber-wagon, and drive them eight or ten miles at a smart pace, and over a rough road. Upon arriving at his destination he finds them bruised, discolored, and withall, looking far more fit for consumption by swine than for human use. The next effort is to sell them, and in this branch of the operation the results of his heedlessness are soon made manifest. It is only after a great waste of time and words that he succeeds in disposing of them, and then but for a mere trifle. It is no

marvel that he goes home in a state of mind no ways enviable, finding fault with everybody, and everything, apple-buyers and apples in particular, and ending with a resolution to let the trees take care of themselves in future.

Had this man (who by the way is but a fair specimen of the majority,) picked his apples carefully, put them in baskets or barrels, and driven slowly to market, a quick sale and high price would have rewarded him in full for his care and attention. Nor would these be the only benefits arising from such a course, the purchaser would be well pleased with his bargain, and a great saving would be made in the time and temper of the farmer. Finally, and best of all, he would return to his home with a firm determination to take the best of care of his trees.

J. G. S.

—*Dollar Newspaper.*

MANURING FRUIT TREES.

The Dutch, who are admirable gardeners, had in the Great Exhibition an instrument called "Earth Borer," for manuring fruit trees without digging the ground. A circle of holes is bored around the tree at two feet distance from the tree, and a foot from each other. Taking the tree at a foot diameter at the surface of the soil, the circle will be five feet in diameter and fifteen feet in circumference; and if the holes are three inches diameter and a foot apart—fifteen inches, there will be about twelve holes; more or less, according to the diameter of the tree. They are eighteen inches deep (where there is enough depth of soil) and slanting towards the center; are filled with liquid manure, diluted more or less in dry weather, and stronger as the weather is wetter. For the time of application, Dr. Lindley tells us (*Gardener's Chronicle*, Feb. 21, 1852:) "For fruit, the proper time for using liquid manure is when the fruit is beginning to swell, and has acquired, by means of its own surface, a power of suction capable of opposing that of the leaves. At that time, liquid manure may be applied freely, and continued from time to time as long as the fruit is growing. But at the first sign of ripening, or even earlier, it should be wholly withheld. If liquid manure is applied to a plant when the flowers are growing, the vigor which it communicates to them must also be communicated to the leaves; but when leaves are growing unusually fast, there is sometimes a danger that they may rob the branches of the sap required for the nutrition of the fruit; and, if that happens, the latter falls off. And we all know, that when ripening has once begun, even water spoils the quality of the fruit, although it augments the size, as is sufficiently shown by the strawberries prepared for the London market by irrigation; great additional size is obtained, but it is at the expense of flavor, and any injury which mere water may produce, will certainly not be diminished by water holding ammoniacal and saline substances in solution." I am not aware that this information has made its way into our orchards, finding no allusion to it in any of our books on orchard management, nor at our agricultural meetings. The time is just coming for putting it to the test, and it remains with the fruit growers to see what profit they can make of it. They need, in these times, all they can get, and this method has the recommendation of requiring little outlay if any.—*Mark Lane Express.*

PROTECTION FROM LIGHTNING.

[We copy the following from an interesting article in the *Portsmouth Journal*, from the pen of E. Meriam, Esq., of Brooklyn, N. Y.,—a gentleman whose opinions on this subject are worthy of respect:]

Lightning-conductors, *reared for the purpose of protection*, afford absolute protection to life against lightning. In all of my long-continued and extensive researches into the phenomena of lightning, I have never found a case of loss of life by lightning either in a building or vessel furnished with a conductor *reared for the purpose of protection*.

As to the fears expressed by many that lightning rods are dangerous, because they say they attract lightning, a brief statement will suffice to show that such fears are wholly and entirely groundless. Steamboats, which contain iron in great quantities, are rarely struck by lightning, and no case of loss of life by lightning has ever been known on board of a steamboat. Iron ships, iron buildings, and warehouses filled with iron, are never struck by lightning, nor have I ever met with a case of loss of life by lightning in a railroad-car. These facts are conclusive as to metals being dangerous from their attraction for lightning.

Trees are no protection, and I advise all persons during thunder-storms to get away as far as possible from trees, whether in front of a building or elsewhere.

Lightning-conductors are of easy construction and need cost but very little, and any person of ordinary capacity can erect them. Iron-wire of No. 1 or No. 2 size, five-sixteenths or one-fourth of an inch in diameter, is abundantly large for a lightning-conductor; it is the size used on board of ships-of-the-line, frigates, and sloops-of-war, and has never failed. Wire of this size costs less than one cent per foot; it can be obtained in pieces of one hundred or more feet in length; no other pointing is required but what can be made by a file. The rod should extend one or two feet above the chimney or cupola, and down to and into the ground to the depth of permanent moisture, and should not come in contact with any other metals. Every chimney to a house should have a rod. A barn fifty feet long should have conductors—one at each end and one in the middle—and may diverge and reach the earth at a distance of twenty feet from the foundation of the building.

The conductors should in no case ascend from one end to the other, but preserve a continuous descent, and in no case make a sharp angle, but where a turn is necessary, it should be a gentle, gradual curve. Where glass insulators are used, the bore should be at least one inch in diameter for a quarter-inch rod, and the iron holder should be painted with two good coats of paint, but the rod should in no case have any paint upon it. The gilded point may flatter human pride, but the lightning needs no such trifling tinseling.

I shall feel a pleasure to give any person precise information as to putting up rods on any kind of buildings, free of any expense.

Persons struck down by lightning, should be freely drenched with cold water; and if animation is not restored, continue the drenching for

hours, and if it fail, add salt to the water and continue the drenching.

More persons have been struck down by lightning during the present year, than during the same length of time for many years. Protection is attainable by almost everybody, and it is surprising that individuals will reject "the way" which the good book says the Creator made for the lightning of the thunder.

For the New England Farmer.

STATE ALMSHOUSE AT TEWKSBURY, MASSACHUSETTS.

Messrs. Editors:—Various remarks have been made by different individuals in reference to the State Almshouse at Tewksbury, some of them having a tendency to make a wrong impression on the public mind, and having some personal knowledge of the place, I thought I would make a statement in regard to the institution.

On the 2d day of May last, and 17th day of August, inst., I made two visits to the establishment, went through all the rooms, looked at the diseased inmates, which were numerous, viewed all the conveniences and apparatus for cooking, the privilege of getting water, the furniture, and likewise all the bedrooms and beds, school-rooms and scholars, and everything else of much importance. We have but very little reason to expect in such a congregation of heterogeneous accumulations of ignorance, vice, disease and misery, collected from every point of the compass, that perfect order can be established in a few days, or perfect neatness uniformly prevail, where constant accessions of filth, rags and vermin are concomitant with many of the new comers. Water is one important item of such an establishment: the superintendent informed me that they had a good supply of water at present, but were improving the wells to have it more plentiful and of better quality. He is subduing and preparing the soil about the buildings for future crops, which appears to be of a strong, retentive nature, and will be found good for the production of fruit trees, grass, and many kinds of vegetables. The soil at the foot of the eminence, on which the buildings are located, is a sandy loam, is clear of stones, and easily wrought and will be found by deep plowing and good cultivation to be excellent for grain and many kinds of roots.

The floors of the house were white and unstained by filth or paint, and imitated the parlor floors which our grandmothers used to pride themselves in exhibiting to company. I saw and examined the bread which was made of wheat, well-baked, light and good, better than many of us have at home. I saw a very large number of boys well-dressed, cleanly and obedient, march up to the dinner table in single file, under better discipline than our ancient military officers kept their soldiers. I saw the school which consisted of some hundred or two of children, very still and obedient to their teacher, and apparently under good discipline, and the governess doing her duty well. I saw the sleeping apartments, which were clean and well ventilated; the beds and coverings were clean and in good order. And, finally, considering the newness of the establishment and the recent time of occupancy, and the numberless difficulties the superintendent and other functionaries are

doomed to encounter, when fully taken into consideration, by the rational mind, what reason has a reasonable man to complain. Let those who use slang and misrepresentation beware that they slander not; what beautiful things truth, moral principle, and a conscience void of offence are; the slanderer generates fuel to consume his own vitals. Let truth and reason prevail over every evil passion, and by the exercise of them prosper the better. The first time I viewed the premises, and went through the apartments and saw the conveniences, my impression was that if those who were taxed to build and support the establishment were as susceptible to envy, as some of our fallen race are, they must feel a degree of it on seeing facilities and conveniences so much superior to their own for rendering the burden of labor light. What have we reason to expect in an establishment for such a purpose, where the inmates, many of them, are the parentage and progeny of all the diseases and vices incident to the old world, with the addition of the variety which exist in the new, but the prevalence of the pestilence which walketh in darkness and devoureth at noonday.

The offspring of many of the inmates are literally conceived in loathsomeness and disease, and born dying in every variety of malady, which is the curse threatened in the commandment of "visiting the iniquities of the parents upon the children to the third and fourth generation," and a severe chastisement for the violation of the laws of God. Who can wonder that cholera and death in every hideous form should be doing its work among such an unfortunate class of polluted victims. The inmates are brought there from every part of the State, and many of them covered with dirt, rags and vermin, to be cleansed, and others with their blood tainted with the most health-destroying diseases. Little chance do the offspring of the poor, inconsiderate, vitiated parent stand to arrive at manhood. On the 17th of August inst., there were six hundred inmates at the institution, and I was informed by the physician that but three had died in August up to that time. It is evident to me that the diseases which the children inherit from their parents are sweeping them off in infancy, independent of cholera or the epidemics incident to our climate. The superintendent and other officers of the establishment shew a good degree of interest in their labors, and the frequent arrival of new inmates seems to promise them a steady run of business. I feel grateful for the gentlemanly kindness of the superintendent and other officers of the institution for conducting me over so much space to give me an opportunity to gain valuable information. SILAS BROWN.

Wilmington, Aug. 21, 1854.

WHEAT FLOUR, BOLTED AND UNBOLTED.—It is said that there are of nutriment peculiarly favorable for the growth of the muscular system, in every 1000 lbs. of wheat, about 28 lbs. In every 1000 lbs. of flour only about 20 lbs., and in every 1000 lbs. of bran, about 60 lbs. To please the eye and the palate we sift out the most nutritive part of the grain, and seek a substitute for it in the consumption of animal food, &c.—There is yet another loss or disadvantage from this rather foolish fastidiousness. The bolted flour will not go nearly so far as the unbolted

If, in a given time, eight persons will consume 40 lbs. of fine flour or the usual product of one bushel of wheat, then it would take a considerably longer time for them to consume that flour with the addition of several pounds of coarser material. This saving from the use of unbolted flour would be greater than just in proportion to the increase in weight of the unbolted above the bolted article, for the former contains the most nutriment. It would be certainly within the limits of truth to calculate that four bushels of wheat would go farther in the unbolted state, than five bushels bolted. This is no contemptible consideration, at present prices of wheat and flour.—To this may be added the fact that unbolted flour is most conducive to health.—*Country Gentleman.*

For the New England Farmer.

HONOR TO THE FARMER'S WIFE.

BY A. G. COMINGS.

We have had some interesting articles from the pen of the editor, upon *Farmer Thrifty* and *Farmer Thriftless*. These have had a very favorable reception in all quarters, and "have gone the rounds" among the scissored fraternity, very much to their honor.

It is never desirable to cripple a fast-sailing ship, nor do anything of the kind; but I cannot help cherishing an inclination to try, at least, to take some of the wind out of those sails, and turn it in a different direction. Having been favored with a view of the inside of "River Cottage," some time since, I am entirely removed from any feeling of danger, if I shall venture to suggest to my esteemed friend, the editor, that *Farmer Thrifty's wife* was justly entitled to a very large share of the honor which has been given to *him*.

A thrifty old-bachelor farmer is a most unnatural, unusual and impossible idea. Mercantile money-worshippers, commercial adventurers, and political fire-eaters, can be made out of those unsocial things called old bachelors. But that first of all employments, and greatest of all, agriculture, requires a being of sense enough to know that he is a man, and to know that no man honors his manhood who is willing to live alone in this world, that is, without a wife. The natural design and first proper use of a farm, is as a *home*. What a home that would be, where woman should have no place! Call for Robinson Crusoe, and let him sing of its "charms!"

In an old bachelor's garden, flowers could not bloom, for any good cause. Fruits could not ripen, except the sour crab apple. He who would not have a wife and children about him, could never care for cattle, horses, sheep, hogs or hens, except with the same hogghish care that grunter has for his provender. It is a settled question. No man can be a true farmer who is so much a brute as not to be a social being. But this is all out-door talk. We must go into the house, and take a look at things there, if we want to understand why *Farmer Thrifty* is always so thrifty and so cheerful.

The chances of thrift in this world, without a wife, are hardly one to a thousand. The chances with a wife, may be reckoned about by square numbers; as, in some communities, about one in four; in others about one in nine; and in others

not more than one in sixteen, or perhaps one in twenty-five. We reckon in this way. The faculty to accumulate, and the ability or faculty to save, are two distinct faculties; which have their application both out of doors and in the house. Without two interested persons, to direct or use these faculties and interests, one in the house and one outside, there is scarce a possibility of success. In the most intelligent and well trained communities, of either men or women, not more than one out of two are capable of managing their part successfully. The probability for the success of the couple will be a square of the chances. The chances are two for the man, out of which to bring one; and in the same manner for the woman. Or, more correctly I should say, the chances of each are as one-half; which, squared, leaves one-fourth; or one in four. Where not more than one in three for each, their united chance would be one in nine; and so on.

The faculty in the exercise of which the man is to excel, is an ability to earn, or accumulate; while the faculty necessary for the woman is an ability to preserve, to keep, to economize.

Now if, as poor Richard says, "A penny saved, is as good as two pence earned;" then *Farmer Thrifty* is not entitled to all the credit of the success which has attended him.

The amount which can be laid up, yearly, after meeting all expenses, is but a small percentage of the stock employed. If the farmer pays interest on his farm, and the farm is worth no more than the sum upon which he pays interest, then he has properly nothing invested except his labor. If his own labor would be worth four hundred dollars, and the economical support of his family would cost him four hundred, the management in the house will decide whether he shall have any profit on this four hundred dollars. If, with the most economical and careful management of his affairs in the house, he could lay up six per cent. profit on the worth of his labor, it would be only twenty-four dollars per year. If he could lay up twelve and a half per cent., it would only amount to fifty dollars in a year.

Some women are always very careful not to encroach upon the *time* of their husbands. Their meals are always ready at the time which will favor the out-door work. If they must call for the assistance of "the boys," or the farmer, or for the use of "the horse," it is carefully planned so as to cost as little hindrance as possible. They study economy in the use of fuel, whether it is obtained from the farm or not; and every article of clothing, or of provisions. Everything is put away, in the best order for preservation, or in the proper place for convenience. Then they greatly increase the strength and activity of the farmer, by the cheerful manner and spirit, and the constancy of life, with which they seek to promote his wishes.

The fact is, the wife of *Farmer Thrifty* makes butter and cheese, when she makes any, which will add twenty-five per cent. to the butter which *Farmer Thriftless* carries to market. Her boys and girls will be kept in as good order nearly twice as long, with the same clothing and shoes, as those of *Farmer Thriftless*. Crockery, glass, china ware, &c., can be used upon her table much longer, by reason of a ready care. *Farmer Thrifty's* wife is a cheerful woman, and people like to

visit at her house. This costs something; but good cheer does so ease the burden of life, that, after all, it is no tax, if not carried to excess.

Now all I have to say about the matter, further, is, that there is no such man as Thrifty, in the list of farmers or mechanics, whose wife is not entitled to as bright a feather in her cap as her husband can wear.

I have no fear that any of the women will get angry with me for what I have said, for none of them read the papers, only the wives of the Thrifties.

A. G. COMINGS.

Mason, N. H.

For the New England Farmer.

THE CETONIA INDA.

SIMON BROWN, Esq.:—Dear Sir,—The insects found by Dr. HOPKINS to be destructive to peaches are described in my Treatise on injurious insects, pages 35—36, under the name of *Cetonia Inda*. They have appeared a month earlier than usual.

The precocious ripening of peaches, noticed also by your correspondent, is one of the signs of yellows. Another is the growth of slender shoots, clothed with diminutive leaves, on the trunks and branches. These symptoms will be followed next year by yellowness of all the leaves. Experienced cultivators recommend digging up the affected trees and burning them,

Yours, truly,

THADDEUS WILLIAM HARRIS.

Cambridge, Mass., Aug. 26, 1854.

REMARKS.—We are again indebted to the kind attentions of Dr. HARRIS, in directing us to a description of the insect sent us and spoken of by Dr. HOPKINS, of Northampton, in his recent communication. Dr. HOPKINS will please accept as an apology, for not forwarding the insect as he desired, that we have been deprived the pleasure of visiting our office in Boston for two weeks, in consequence of sickness. We are again grateful for restored health, and are ready to labor in the delightful field of agricultural progress wherever work is to be done. Below we append the history of the *Cetonia Inda*, from Dr. HARRIS' interesting work on insects.

"Two American Cetonians must suffice as examples in this group. The first is the Indian Cetonia, *Cetonia Inda*; one of our earliest visitors in the spring, making its appearance towards the end of April or the beginning of May, when it may sometimes be seen in considerable numbers around the borders of woods, and in dry open fields, flying just above the grass with a loud humming sound, like a humble-bee, for which perhaps it might at first sight be mistaken. Like other insects of the same genus, it has a broad body, very obtuse behind, with a triangular thorax, and a little wedge-shaped on each side between the hinder angles of the thorax and the shoulders of the wing-covers; the latter, taken together, form an oblong square, but are somewhat notched or widely scoloped on the middle of the outer edges. The head and thorax of this beetle are dark copper-brown, or almost black, and thick, and thickly covered with short greenish yellow hairs; the

wing-cases are light yellowish brown, but changeable, with pearly and metallic tints, and spattered with numerous irregular black spots; the under-side of the body, which is very hairy, is of a black color, with the edges of the rings and the legs dull red. It measures about six-tenths of an inch in length. During the summer months the Indian Cetonia is not seen; but about the middle of September a new brood comes forth, the beetles appearing fresh and bright, as though they had just completed their last transformation. At this time they may be found on the flowers of the golden-rod, eating the pollen, and also in great numbers on corn-stalks, and on the trunks of the locust-tree, feeding upon the sweet sap of these plants. On the approach of cold weather they disappear, but I have not been able to ascertain what becomes of them at this time, and only conjecture that they get into some warm and sheltered spot, where they pass the winter in a torpid state, and in the spring issue from their retreats, and finish their career by depositing their eggs for another brood. Those that are seen in the spring want the freshness of the autumnal beetles, a circumstance that favors my conjecture. Their hovering over and occasionally dropping upon the surface of the ground is probably for the purpose of selecting a suitable place to enter the earth and lay their eggs. Hence I suppose that their larvæ or grubs may live on the roots of herbaceous plants.

The other Cetonian beetle to be described is the *Osmoderma scaber*, or rough Osmoderma. It is a large insect, with a broad oval and flattened body; the thorax is nearly round, but wider than long; there are no wedge-shaped pieces between the corners of the thorax, and the shoulders of the wing-cases, and the outer edges of the latter are entire. It is of a purplish-black color, with a coppery lustre; the head is punctured, concave or hollowed on the top, with the edge of the broad visor turned up in the males, nearly flat, and with the edge of the visor not raised in the females; the wing-cases are so thickly and deeply and irregularly punctured as to appear almost as rough as shagreen; the under-side of the body is smooth and without hairs; and the legs are short and stout. In addition to the difference between the sexes above described, it may be mentioned that the females are generally much larger than the males, and often want the coppery polish of the latter. They measure from eight-tenths of an inch to one inch and one-tenth in length. They are nocturnal insects, and conceal themselves during the day in the crevices and hollows of trees, where they feed upon the sap that flows from the bark. They have the odor of Russia leather, and give this out so powerfully, that their presence can be detected, by the scent alone, at the distance of two or three yards from the place of their retreat. This strong smell suggested the name *Osmoderma*, that is scented skin, given to these beetles by the French naturalists. They seem particularly fond of the juices of cherry and apple trees; in the hollows of which I have often discovered them. Their larvæ live in the hollows of these same trees, feeding upon the diseased wood, and causing it more rapidly to decay. They are whitish fleshy grubs, with a reddish hard-shelled head, and closely resemble the grubs of the common dor-beetle. In the autumn each one makes

an oval cell or pod, of fragments of wood, strongly cemented with a kind of glue; it goes through its transformation within the cell, and comes forth in the beetle form in the month of July."

ABOUT APPLE TREES.

The season of Autumn, in New England, has come to be highly favorable to the operations of husbandry. Most of the three autumnal months afford delightful weather for plowing and reclaiming, for building stone walls, ditching and transplanting; the month of November, even, affording weather suitable for hauling manure and preparing the earth for most of the crops of the coming year. The spring time for preparing the soil and getting in the various crops, on the other hand, has come to be usually inclement and short—April being too wet and cold, frequently, either to plow, sow, or plant. It is, therefore, well to accomplish as much of the farm work as possible in the fall, leaving more time in the spring to perform the important labors then before us, more considerably and thoroughly.

We know of no substantial reason why apple trees should not be transplanted in the fall, and there are several reasons which, to our mind, make it *the proper time*. The first we have already adduced—there is a less demand upon our time by other things waiting to be done. We can visit the nurseries and make a more thorough examination of trees in the pleasant autumn days, than through the snows or mud of March and April. Another reason is, that trees well set in October, after having cast their leaves, "will gain fibres enough to support them before winter, and will shoot well the next spring, and better than those planted in the spring." But in fall transplanting, care must be taken that no water remains standing about the tree through the winter; and BRADLEY says—in his Treatise on Husbandry and Gardening—"we must never fail to plant the same side towards the south which stood so before." The tree being set, it is a good plan to throw the soil about it to the height of a foot or more, which will steady it through the winter and keep its roots in place; in the spring it should be levelled.

Having the tree now set and finely growing, it will not do to let nature sport with it in her freest moods, nor on the other hand to be perpetually at work upon it with the pruning-knife. Continual pruning makes the tree shoot into false wood and miscarry of its buds designed for fruit; and the reason of it is this—the root had filled itself with juices proportionable to the nourishment its standing branches required, and when these are taken away, the effort that nature makes is to supply new shoots to receive the sap which the root has stored up. This will be made evident to any one who will observe the great number of

suckers or new *shoots* on an old apple tree after it has been severely trimmed for grafting in the spring—the root had laid up the sap, and there not being sufficient outlet for it, it had to supply such outlet by making new wood.

It is often said that the shaping of trees and the training of vines is entirely a matter of taste; but we cannot think the opinion a correct one, any more than it would be applied to the ox, the horse, or the cow. Symmetry in shape in the latter pleases the eye and at the same time gives large muscles and a corresponding strength and weight, and thus utility is combined with good taste. So it is of the tree and the vine. We believe that as much *good taste* is yet to be manifested in the management of trees, as there has already been in the improvement of our animals, and that the development of this good taste will also increase *the profit* of the fruit crops. A great many of the apple, peach, apricot and plum trees in New England, are neither in a state of nature, nor managed according to the rules of art. They are budded or grafted trees, and are thus not according to nature; then they are hacked with axes, lacerated with dull saws and gouged with hob-nailed boots. A limb is smote off here which ought to have remained, and another left there which outrages every rule of proportion. In forming the young tree we would start the limbs about five feet from the ground, and should allow no centre perpendicular stem above them. Three or four branches coming out at opposite sides of the stem will give a round full head, in shape somewhat like an umbrella reversed, and as the tree increases, will throw out numerous lateral branches, which will fill up and form a head of beautiful symmetry, and one which is, we think, the best calculated to produce the greatest money value of fruit. Perhaps not the largest quantity but of the most value. None of these lateral limbs should be allowed to cross the tree—that is, to start from one side and grow *across* the inside of the tree. When shaped in this form, a person may walk pretty much over the top of an apple tree which has been growing twenty years; the light and air is freely admitted, the limbs do not obstruct and chafe each other, and room is left below for the comfortable cultivation of the land. Trees once formed in this manner will scarcely need the knife or saw for years in succession, unless in cases of accidents, provided the cultivator uses his thumb and finger judiciously when the shoots are young and tender.

Apple trees, however, producing different kinds of fruit have different habits of growth. Some inclining to shoot upward in a prim and slender form, others into compact, thick heads, with strong, lateral branches, while others, again, assume a pendent form. Most of the sweet apple trees have long, slender, whiplash-like branches;

the Rhode Island Greening has a compact and pendulous head, the ends of the limbs often touching the ground when loaded with fruit, although leaving the main stem at a distance of five or even six feet from the ground. The branches of the Baldwin usually assume a position the most convenient to come at either for working among or for gathering their fruit, as they seldom take a vertical or true horizontal direction. So the Blue Pearmain and the Sopsavine have forms peculiar to themselves.

Now it will be apparent to any observer that the same kind of pruning will not answer for all these varieties,—and that in order to prune judiciously, there must first be some knowledge of the habit of the tree operated upon. Lacking this knowledge, many trees receive precisely the kind of treatment which they ought not to get.

A word of caution may be given with regard to the depth at which a transplanted tree ought to be set. If too deep, especially if the soil be cold and springy, the fibres and small roots are apt to mould and decay, and thus affect the larger roots; the tree will also frequently throw out a new set of roots just at the point which was originally the crown of the root. But if not set deep enough, the tree is too easily shaken by the wind, and the roots are so near the surface that the proper cultivation cannot be carried on without constant danger of injuring the roots. The rule should be to set the tree as nearly as possible as it stood before it was removed, varying a trifle, perhaps, if the soil is different from that from which it was taken.

It is essential to the thrifty growth, and even the health of trees, that the ground upon which they are set should be cultivated; and we have long observed that where hoed crops are planted, the trees flourish the best. Digging about them for the space of three or four feet will not answer. They feel cramped and confined in such a position, and will not freely extend their roots; they shun a compact grass ground, and will shoot in any direction to avoid it. We once removed a row of apple trees which were four years old, on one side of which was an old mowing field, and on the other a well-cultivated garden; on lifting them we found that on the side of the tree next to the grass ground there had not a root extended to the length of six inches, although the sward itself was not within two feet of the tree. Some roots had started on this side, but had all turned to the lighter earth of the garden. In this mould they had free range and pasturage and many of the roots were three feet long.

Some persons practice digging a space about the trees, and keeping it free from weeds and grass, and then plow a strip through the centre of about half the whole width at which the trees are set apart; this, they say, makes a rich and

mellow bed which the roots from each side will seek, and the trees will flourish finely. We have had no experience of this kind, and cannot say how such treatment will succeed. To expect trees to thrive well on grass ground is almost as absurd as to expect them to do so if they were annually defoliated in June.

We will suggest to the inexperienced, also, the importance of protecting the young trees against the effects of the droughts which prevail in our climate. It is important that the tree should be kept generously growing through the month of August. Forest trees are, probably, seldom affected by drought. The leaves which they cast fall upon their roots and soon accumulate to such a depth that the sun's rays are excluded, and evaporation greatly impeded. The cultivator must imitate nature in this respect and cover the ground for several feet about the tree with straw, refuse hay, saw dust, chip dirt, or anything that will have the effect of the fallen leaves. We have seen fine brush, mostly white birch, answer the purpose admirably.

With one other caution we will leave the subject for the present, and that is, to keep all cattle, horses and swine from young trees. The apple is not a difficult tree to raise; with a little but constant care almost any garden will produce enough for the wants of a common family. They can have

"The pippin, burnished o'er with gold, the moyle
Of sweetest honied taste; the fair pearmain,
Tempered, like comeliest nymph, with white and red."

together with the Baldwin, Porter, Russet, Sweeting, and a dozen other varieties.

For the New England Farmer.

EFFECTS OF THE DROUGHT.

MR. EDITOR:—Within a few days past, I have had an opportunity to notice the condition of the crops, in the County of Essex, and never have I seen the effects of the drought more general and destructive. On grass fields, where a fine second crop was expected, there is nothing to be mown, and scarcely anything to be fed. This part of the produce of the farm must fail entirely. Most of the fields of Indian corn are suffering severely. Where a fortnight since there was good reason to expect 60 bushels to the acre, I think the proprietors would gladly compromise for thirty;—and many fields, where the ears had not formed before the drouth began to pinch, there will be scarcely enough to pay for gathering. On such fields, an anxious inquiry arises, what shall be done? Shall the whole be cut up, at the ground and cured for fodder—or shall an attempt be made to cut the stalks—or shall the field be left, until the time of harvest? These are questions, in which many cultivators feel a deep interest. Nothing can be more disheartening to the confiding laborer, who has toiled from April to Sept., in the hope of finding a reward for his labors, in his well filled ears of corn, than to find nothing but cobs, and these imperfectly grown. Such, if I do not mistake, is to

be the fate of many laborers the present season. The corn fields are not alone in suffering. Nearly all the fields of vegetables are suffering in like manner. The ruta бага turnip, where *five and twenty tons* to the acre were hoped for, it will be fortunate to gather *five tons*. I have seen entire acres so scorched that a fire would run through them like a stubble. Onions generally will fail to yield half as many as were expected a month ago. Never was the promise of this crop better than about the middle of July. Trees, fruit and forest, are perishing for want of moisture. All signs of rain fail, and the dust fills the eye and the throat wherever you go. These are facts in this region, I hope it may be better with you—if not the Lord have mercy on us, or we perish.

Aug. 25th, 1854.

For the New England Farmer.

A BEAR STORY.

MR. EDITOR:—As I have noticed that you sometimes admit a "bear story" into the *Farmer*, I have scribbled off one, which your readers may rely on as a *true story*, for my grandfather "told it" to me when a child, and after he was ninety years old, more times than I can now remember. My grandfather was a native of New Haven, Conn., and his father owned land "up in the country," which, when my grandfather was about ninety years of age, was a wilderness, (except a few scattering settlements) and which he offered to give to his boys if they would go and settle on it. My grandfather chose a tract in what is now Acworth, N. H., east of old No. 4 on Connecticut River, now Charlestown, N. H. He "took his pack on his back" and footed it through to No. 4. This was soon after the "French war, and eight or ten years before the Revolution. He located himself about five miles east of the settlement of No. 4, in the wilds of the forest, with nought but the wild beasts for his companions, and commenced his future home by felling a few trees, setting four crooked poles in the ground, laying poles from one to the other, and covering them with bark. This was his first house.

He would work from Monday morning till Saturday night, felling trees, clearing land, &c., and then return to No. 4 to spend the Sabbath, where he had his washing done and his bread baked.—The next Monday morning he would take his bread and "pork and beans," and return to his labor, with no human being in town but himself. Many an adventure and "hunting story" has he related to me after he got to be an "old child," with all the enthusiasm of a young one.

On one occasion, after a hard day's labor, he had retired to his bunk in one corner of his cabin, to sleep and rest, for he was very tired that night. It was a warm summer night, and the entrance or door to his cabin had been left open. Just as old Morpheus was enfolding him in his arms, he thought that he heard something at his cabin door:—he opened his eyes, and there was an old bear with her head extending into the cabin, taking a snuff at him, as if she would like to taste, if she dared to. He reached to get his "old bear gun," which he always kept ready loaded at the head of his bed; but bruin concluded to leave rather suddenly without her supper, and before grandfather could "take aim."

But for the big bear story, or story of the "big bear."

After several years, my grandfather had a neighbor, a Mr. K., who commenced on land adjoining his. Mr. K. was a married man, and my grandfather now boarded with him. They had got sufficient land cleared and into grass, so that they kept a little "stock;" but they occasionally missed a "young creature," or a sheep from their small flock. They soon ascertained that a big bear had taken the liberty to "lay her paw" on a yearling, two-year-old, or sheep, just which she could find handy, or as she preferred mutton to beef, or vice versa, and "help herself" to such fresh meat as "she chose," without invitation.

She became "notable" on all the "clearings" round about, and soon got so bold as to walk into the pastures and make her selection in the day-time.

They therefore "kept an eye on her," and occasionally got a fair shot, but she escaped the best marksmen, and appeared to be impervious to powder and ball.

One Sabbath, when my grandfather was gone to No. 4, Mr. K. and his wife were left alone in their little log house. They had got dinner ready, and were just sitting down at the table, when they heard their old hog, which was in the dooryard, and the only "porker" they had, make an unusual grunting. Mrs. K. remarked to her husband that she guessed he had not given the old hog her dinner, and she was calling for it. He replied that she might wait till they got through with theirs, and that he should not leave his to feed her. But the old hog kept up such a tremendous grunting, that Mr. K. thought there must be something unusual, and told his wife to go to the window and see what it could be:—when, behold, there was the "big bear" walking watchfully around the "big hog."

Mrs. K. quickly informed her husband, who got to the door just as the bear pounced upon the hog. Mr. K.'s first object was to save the life of his hog; so, without going back for his gun, he ran immediately out, and began to pelt the old bear with stones, of the size of his fist, with a full determination to make her let go; but the bear was just as determined not to give up her game, (though such sized stones, hurled by such a muscular arm, did not strike very lightly against her ribs and head) and with one paw to hold the hog down, she raised the other high in the air, exposing her large claws, and giving a grin that showed her "beautiful ivory," she gave such a snarl and growl of defiance as would have rather started a fellow unacquainted with bears.

Mr. K. soon became convinced that there was not enough "virtue in stones" to make bruin give up his "porker." He therefore ran quickly into his house, took down his gun and powder-horn, without stopping to get his bullet-pouch, and ran back to the "field of action."

The old bear was trying to take up the hog and be off. Mr. K. put a handfull of powder into his gun, and holding the muzzle within a foot or two of the bear's face, "let blaze"—it blew the wool and skin off one cheek, but the bear walked off with the hog in her mouth for the woods, which were thirty or forty rods from the house. Mr. K. began to put down a charge of powder, and called to his wife to bring the bullet-pouch, which

she quickly brought, and he down with the ball; but in his haste, when he cocked his gun, he pulled so hard on the lock, that he dislocated some part of the inside work, so that when he took aim, he could not pull it off, (but the bear was all the time moving off with his hog.) He called to his wife to bring a brand of fire, and when he got aim, he would give the "word of command," and she must "touch it off." Well, "all was ready," the command given, his wife applied the fire-brand to the powder in the pan—"bang goes the gun," but the bear had got so far off as to be out of reach of his piece, and entered the woods in triumph, with the hog in her mouth. What could they do for meat the next winter? Their only hog was gone!

My grandfather returned that evening, and in the morning they went out to hunt for the hog in the woods. After some search they found her covered with leaves and brush, but partly eaten up. They concluded to load both their guns with two bullets each, and set them cocked in a right direction, with one end of a cord attached to the triggers of the guns, and the other to a piece of the pork, so that when the old bear came to take her next meal, she would unconsciously shoot herself. About midnight they heard both guns go, bang! bang! but in the morning no bear was to be found, though both guns were fired off. They gave her up for that time. The next fall, Mr. K.'s cow was taken sick and died, which with the loss of their hog, left them with but a small prospect of milk and meat for the next year.

They concluded to put the carcass of the cow in the woods near where the bear left the hog, in hopes that the bear would come to feast on the carcass of the cow, and perchance they might yet capture her. It was not long before they found that some animal of not very "small proportions" was helping itself to not very small quantities of the "extra beef." Mr. K. and my grandfather appointed a night to go and watch near the carcass of the cow, for the bear. They loaded both their guns with two balls each, and just at dusk they went to the woods, and seated themselves six or eight rods from the carcass, at the roots and on opposite sides of a large hemlock tree, with the agreement to keep as still as possible for an hour or two, as they expected that the bear would come the fore part of the night, if at all. They sat still for about two hours, without any conversation, their backs resting against the big tree, and the breech of their guns resting on the ground between their feet, and as they were on opposite sides of the tree, they had a view of all points of the compass; but with all their gasings and listening they could neither see, nor hear anything of the bear.

It had now got to be past ten o'clock, and extremely dark; and as my grandfather had been at work very hard through the day, he was quite tired, and ventured to whisper to Mr. K., that he thought it best to go home, as the bear would have probably been there by that time if she had been coming at all that night; and if she did come, it was so dark they could not see her five rods off. Mr. K. replied, that if he would wait a short time, and the bear did not come, they would go home. They again kept still as the darkness around them;—in about fifteen minutes my grandfather heard the click of Mr. K.'s gun, as though he were cocking it, and in another minute "whang"

goes his gun, and there was such a bounding and thrashing as indicated "something was disturbed," while the discharge of the piece echoed through "those grand old woods," and sounded in the "stilly night," like the discharge of a field-piece. Mr. K. thought before he fired, that he heard something moving among the leaves, that made not much more noise than a mouse. He gazed with all his might into the darkness, in the direction of the slight noise, and thought he could discover a spot blacker than darkness; he cocked his gun, raised it to his face, but he could see nothing, and all was still. He waited a moment, and thought he heard a slight crackle of dry twigs and leaves; he gazed again with all his power, and thought he could see one spot blacker than the darkness around, and that it slowly moved. He ventured to fire, and hence the thrashing and bounding;—something must be "scared if not hurt;" but it was so dark that they could not ascertain that night what had been done. They went home, and in the morning returned to the woods to search for the game. About six rods from the tree by which they sat, and in the direction that Mr. K. fired, they discovered the old bear's tracks, which they followed, (and also marks of blood on the leaves,) about twenty rods, when they came to the old bear,—dead, dead, dead! Yes, 'twas "that same old bear," for there was no hair on one side of his face, "on the place where the wool used to grow." The charge of powder that Mr. K. fired against it, when trying to save his hog, burned so deep that no hair ever grew out. When they dressed her they found seven musket and rifle balls in different parts of her meat, and a charge of pigeon shot in her buttock. She weighed between seven and eight hundred pounds, and had to answer for their "pork" that winter; though it was "bear's meat" after all.

MILAN.

Morristown, Vt.

For the New England Farmer.

SOW THE WINTER WHEAT.

MR. EDITOR:—Dear Sir,—Universal drought seems to have seared our whole country as with a hot iron.

The hay and grain harvests seem to have been satisfactory, as far as they went. The pinch, or general failure, falls upon the corn and potato crops; now suppose all the farmers of New England had averaged this season three acres of winter wheat or fifty bushels to the farm, would it not have been comforting in these dubious days which threaten the failure of other crops? A farmer from N.H., writes to a brother here, that he has cut up his corn for fodder, and will not have a peck of potatoes on his farm.

We have patiently waited for lower prices in breadstuffs—hoping that demand abroad would lessen, but this will be met by increased consumption at home. The new crop has not reduced the price of flour to so low a point as was expected; high prices are inevitable; these are *lessons* and *warnings* not to be overlooked. Self-protection and self-interest demand a universal effort among your farmers; they will yet be made to believe that wheat is as legitimate a crop among them, as is winter rye. Practice will prove it.

This is seed-time, the precious time to sow the

grain. Every bushel should be in the ground by the middle of September. In my last I alluded to the manner of cultivation and gave such reasons as I think to be right; Mr. Editor, you recommended $1\frac{1}{2}$ to $1\frac{1}{4}$ bushel to the acre. For six years I sowed two bushels to the acre, and never found I had over-seeded. I soak the seed in weak salt pickle over night, skimming off the foul seed and then rake it well in ashes on the barn-floor; this makes it come up very quick.

A farmer in Maine says he has got the best wheat from pasture lands.

The waste pasture lands of the old States, if cultivated in wheat, would furnish the people with bread. Hundreds of thousands of such, and of excellent quality (many of which hold their own although fed from generation to generation) were they cultivated, would disclose a richness of soil, capable of producing large crops, and when prepared to lay down to grass, *ten acres* thus brought up, will produce more feed than fifty acres of ordinary pasturage that stock have ranged over for a century. Drought pinches it less; feed continues good when the old pasture is dry; the cows go home well charged with milk; they have not worked so hard to fill themselves; they fatten instead of growing lean, and thus a double object would be gained by reforming the old, worn-out pasturage system, which constitutes a large portion of the farms of New England.

It would seem to be a good season to plow a pasture and sow wheat on the sod, and if well-manured, grass seed may be sown at the same time, so that little time would be lost in using it as a pasture; I have practiced in this way, (laying down to grass on the sod) although the grass somewhat interferes with the wheat crop, but not much.

Yours truly,

H. Poor.

Brooklyn, N. Y., Aug., 28, 1854.

WHICH IS THE HAPPIEST MAN?

We know a man in Michigan who lives on the interest of his money, and that is only \$70 per annum. He has, it is true, a small house with one room in it, three or four acres of land, and keeps a cow, a couple of pigs and a few hens, yet he and his wife always appear cheerful and contented, and preserve a respectable appearance on their \$70 per annum.

We know of a man in New York, who expends \$25,000 per annum for his household expenses. He pays for gas-light more than the whole income of the Michigan man. He makes annual holiday presents to more than the whole amount of the property of the Michigan man. It costs him a sum six times as large as the whole income of our philosopher to support a single waiter.

We know them both very well, and we think our Michigan friend by far the happiest, healthiest and most enviable man. They are both advanced in years. The cheapness of books and papers places abundance of rational enjoyment in the power of the countryman; an accumulation of physical ills, and a necessity for intense activity, deprive the citizen of calm and quiet enjoyment and reflection. The former, in the probable course of events, will die of old age at ninety, the latter at seventy. Such is the distribution of happiness and wealth.—*Toledo (O.) Blade.*

For the New England Farmer.

HAY-CUTTERS—HOW TO SAVE CHILDREN'S FINGERS.

MY DEAR BROWN:—A lady says I must forthwith tell the public, through the *Farmer*, how I have contrived to fasten my hay-cutter, so that children cannot cut off their fingers with it. It is one that has a crank and fly-wheel, of the kind most used. I first fastened the machine to the barn floor with hasps. Then I took a round walnut stick, about 4 feet long and $1\frac{1}{2}$ inch in diameter, for a spring, and made it fast to a post of the barn, so that it projects over the fly-wheel, as high up as a man of proper size can conveniently reach. About a hand's breadth from the end of my spring, I attached a leather strap, which hangs down over the wheel, and to the end of the strap I fastened a hook, which I made in about two minutes, of a piece of No. 9 wire, doubled and twisted. Let the strap be short enough to give sufficient strain, take hold of the projecting end of the spring and bend it down, and hook on to the fly-wheel. A spring which a man can thus bend in an instant, will support the weight of a whole family of small children, without starting. If anybody knows of a better contrivance than this, for the purpose, it is his duty to make it known. I think it is about a fair estimate, that one child in every four, where a hay-cutter is used, in their bringing up, will be found, with more or less fingers cut off. One of my own out one of his nearly off, at three years old, and I know of a family where three boys out of seven have lost portions of their fingers in this way.

I was induced thus to secure mine, one day last week, for the safety of the children of a friend from a city, who came with his family to visit me, knowing that the first civility shown by country children to their little cousins from the city is, to cut their fingers off with the hay-cutter, and I finished the job the first morning before breakfast with my own hands, so that, if you can, guess at what time I rise, and at what time breakfast is ready, you can calculate just how much time it took.

If somebody will "continue the subject" and invent some way to protect the hands of men as well as children, from these machines, he will prove a benefactor to his race. I have had a machine in use seven years, and one of my men cut one finger entirely off, and that and Willie's finger, which entirely recovered, are the worst cuts we have had. One of my neighbors has been less fortunate; and from what I hear, I should judge that, in the same time, something less than half a peck of fingers had undergone the guillotine, with his machine.

To be sure, everybody knows, that if a man is careful, he need not thus injure himself, but it has always struck me as a poor kind of consolation to tell a person thus maimed, that his accident was

the result of his own carelessness. At least, let us protect the children from such misfortunes.

There is scarcely anything that so readily moves the compassion of a man who has a heart in the right place, as to see even the child of a stranger mutilated in such a manner. You and I, friend Brown, know a boy who has lost two fingers by such a machine, whose father now, years afterwards, can never allude to the accident without being moved to tears.

H. F. FRENCH.

Exeter, N. H., Aug. 26, 1854.

THE PRICE OF WHEAT.

The following table, which we find in *Hunt's Merchant's Magazine*, is from the minutes kept at the office of the Van Rensselaer Manor, at Albany, where large amounts of rent are payable in wheat, or a cash equivalent, on the first of January, each year; and as two parties are deeply interested in the price, it is probably the most reliably correct of any record that can be obtained. There is quite a lesson in these figures—look at them.

Price of wheat per bushel, January 1st, at Albany, sixty-one years, viz:—

1793.....\$0 75	1824.....\$1 25
1794.....1 00	1825.....1 00
1795.....1 37½	1826.....87½
1796.....2 00	1827.....1 00
1797.....1 50	1828.....1 00
1798.....1 25	1829.....1 75
1799.....1 18½	1830.....1 00
1800.....1 56½	1831.....1 25
1801.....1 81½	1832.....1 25
1802.....1 00	1833.....1 00
1803.....1 12½	1834.....1 00
1804.....1 25	1835.....1 00
1805.....2 00	1836.....1 50
1806.....1 42½	1837.....2 25
1807.....1 37½	1838.....1 62½
1808.....1 12½	1839.....1 75
1809.....1 00	1840.....1 12½
1810.....1 56½	1841.....1 00
1811.....1 75	1842.....1 25
1812.....1 87½	1843.....1 87½
1813.....2 25	1844.....2 00
1814.....1 87½	1845.....93½
1815.....1 62½	1846.....1 18½
1816.....1 75	1847.....1 12½
1817.....2 25	1848.....1 81½
1818.....1 87½	1849.....1 18½
1819.....1 75	1850.....1 18½
1820.....1 00	1851.....1 12½
1821.....77	1852.....1 00
1822.....1 12½	1853.....1 18½
1823.....1 25	1854.....1 75

You will notice that only five times in all those years wheat has been \$2 or upwards per bushel, while it was seventeen times at \$1 or under—twice at 75 cents. Only once in thirty-seven years, that is since 1817, to wit in 1837, has it reached \$2. The average price for the whole period is \$1.38. For the last thirty years it is \$1.25, and we give it as a prophecy, which, we think, may be relied upon, that that will be the price next January. Those who are interested may as well take a note of that. The crop of wheat is too good, too wide extended and the demand for export to Europe or California too limited and flour speculators too hard up to maintain present prices. You may as well mark that, Messrs. Farmers and Wheat buyers.—*N. Y. Tribune, July 22.*

It will be seen that the above was written about a month ago. Since then, the continued drought has very seriously affected the Indian corn crop throughout a large portion of the country, and in

many instances in extensive sections entirely ruined it. This cannot fail to affect in a considerable degree the price of wheat, and we are inclined to believe that it will range much higher than it is estimated above—probably quite as high as in January, 1854.—*Country Gentleman.*

For the New England Farmer.

GRAPE WINE—DROUGHT.

FRIEND BROWN:—In answer to your correspondent in regard to grape wine, I would say that any one that knows how to make good cider, can make good wine from native grapes, as the process is just the same, only that sugar and water are added to the wine. The wine that you saw and tasted, was not more than 1-5 water, and nearly 3 lbs. good brown sugar were added to the gallon, and it was pressed out in a new basket; using clean washed salt bags for strainers, and laying weights on top for a press.

The wine I made last year, is not as good as that made the year before. The grapes should be well ripened, but not too ripe.

The drought is more severe here at this time, than I ever knew it, although the streams and springs are not as low as I have seen them many times before. Corn and potatoes are suffering very much, and some fields are past recovery. Apples look well, and are very free from insects, but they will ripen prematurely if we do not have rain soon.

The trees do not all bear fruit as they do generally in the bearing year, but there is very little that is poor and knurly.

B. F. CUTTER.

Pelham, N. H., Aug., 1854.

For the New England Farmer.

A GOOD GARDEN.

MR. BROWN:—I have taken your *N. E. Farmer* ever since its commencement, and have often on looking it over, had a mind to tell you my experience as a farmer and gardener. Well, sir, thirty years ago I purchased an establishment consisting of a dwelling-house, barn, carriage and wood-house, calculating to make it a permanent residence. There was attached a little land for a garden, on which were just five apple trees, and in front of the house were three trees of the balm of Gilead; the trees were all about six inches in diameter at that time, but two of the apple trees were hollow, and I cut one of them down, after trying to make it do something and could not.

Well, all the apple trees bore something for fruit, but so crabbed and sour they would make a pig squeal. At this time I was engaged as a trader, and had a country store to look after, which occupied about all my time, but as time wore on and stage-coaches and railroad cars succeeded one another, I had more time; for I can now travel as far in four hours as I could then in two entire days with my team. Well, for amusement I grafted all the four apple trees gradually, or year by year, cutting off the old branches and grafting the limbs with Roxbury russets, New York russets, Baldwins, &c., &c., all the best kinds I could find. Now for results;—I have had about ten barrels of good apples, annually, to put up for winter for three or four years past, beside all we

used in the family of five, and we have used them freely, all we wanted, till time to gather the winter apples.

I have a yard in front of my house about forty feet square, in front of which are two of the balm of Gilead trees before mentioned, which are now large trees, and I have left them outside of the front fence; but inside of the fence I set out about ten years ago, three pear trees of the common summer pear, which now give us all the pears we want, for they have borne well for about four years. From the pear trees to the house, I filled the space with flower-beds, and have had many varieties, say twenty kinds of roses, and nearly one hundred kinds of flowers; I have planted on the south side of my buildings, next to the passage to the barn, plums, peaches and grapes. The peaches have not succeeded well, nor the plums, so I cut the plum trees off and grafted them with the green and purple gage, only three or four years ago, and now I have plenty of the finest plums I ever saw, so that I have had to prop the small branches. My grapes began to bear last year; I had about a bushel, and I should think I might get double the quantity this year. I have set out some quinces but they do not bear yet.

Beside the trees and grape vines, I have annually raised about ten or fifteen bushels of potatoes, six or seven bushels beets and carrots, some English turnips and ruta-bagas, and a few cabbages and onions, as many as our folks wanted to use. We have also had beans, péas and corn, what we wanted to use green, and I have annually had about three or four bushels of dry corn, say two bushels common yellow corn, one bushel of pop corn and sweet corn enough to plant myself and supply all my neighbors. Also, I have annually raised cucumbers, water and muskmelons, summer and winter squashes, one or two hundred pounds of each: eight hundred or one thousand pounds pumpkins. All this has been raised on less than half an acre of ground, including buildings and drive-way, and I have had more vegetables for years in my family, than some men that cultivate one hundred acres, and all on poor, gravelly New Hampshire land, without any help but my girls in the flower department. And as Goldsmith says, "we make every rood of ground support its man."

Fitzwilliam, August, 1854.

D. S.

HOMINY.

In point of economy, as human food one bushel of beans or hominy is equal to ten of potatoes. Hominy, too, is a dish almost as universally liked as potatoes, and at the South about as freely eaten, while at the North it is seldom seen. In fact, it is an unknown food except to a few persons in cities. By hominy we do not mean a sort of coarse meal, but grains of white corn, from which the hull and chit or eye has been removed, by moistening and pounding in a wooden mortar, leaving the grains almost whole, and composed of little else but starch. It has been said that not one cook in ten knows how to boil a potato. We may add another cipher when speaking of the very simple process of cooking hominy. We give the formula from our own experience and instructions received in a land where "hog and hominy" are well understood. Wash slightly in cold water, and soak

twelve hours in tepid soft water; then boil slowly from three to six hours in the same water, with plenty more added from time to time with great care to prevent burning. Do not salt while cooking as that, or hard water will harden the corn. So it will peas or beans, green or dry, and rice also. When done, add butter and salt; or a better way is to let each season to suit their taste. It may be eaten with meat in lieu of vegetables, or with sugar or syrup. It is good hot or cold, and the more frequently it is warmed over, like the old-fashioned pot of

"Bean-porridge hot, bean-porridge cold,
Bean-porridge best when it's nine days old."

So is hominy—it is good always, and very wholesome, and, like tomatoes, only requires to be eaten once or twice to fix the taste in its favor.—*Journal of Health.*

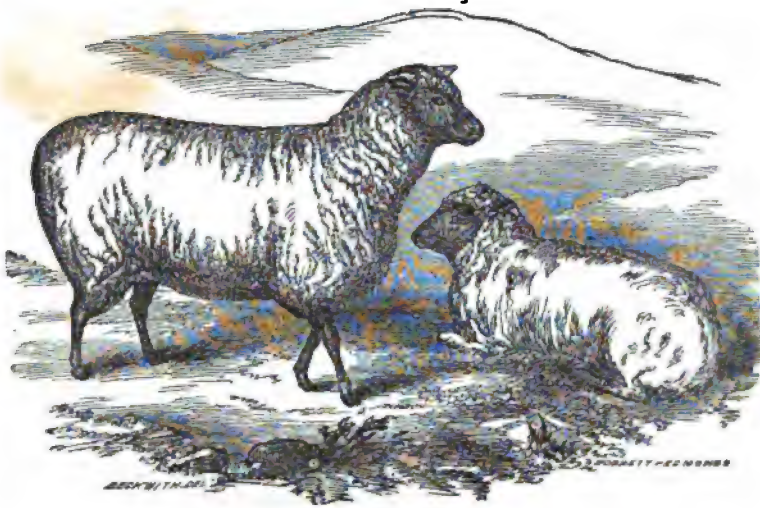
PLAYFULNESS OF ANIMALS.

Small birds chase each other about in play, but perhaps the conduct of the crane and the trumpeter (*Pospesia crepitans*) is the most extraordinary. The latter stands on one leg, hops about in the most eccentric manner, and throws somersets. The Americans call it the mad bird, on account of these singularities. The crane expands its wings, runs round in circles, leaps, and throwing little stones and pieces of wood in the air, endeavors to catch them again, or pretend to avoid them, as if afraid. Water-birds, such as ducks and geese, dive after each other, and cleave the surface of the water with outstretched neck and flapping wings, throwing an abundant spray around.

Deer often engage in a sham battle or a trial of strength, by twisting their horns together and pushing for the mastery. All animals that pretend violence in their play stop short of exercising it; the dog takes the greatest precaution not to injure by his bite; and the ourang outang, in wrestling with his keeper, attempts to throw him and makes feints of biting him. Some animals carry out in their play the semblance of catching their prey; young cats, for instance, leap after every small and moving object, even to the leaves strewn by the autumn wind; they crouch and steal forward ready for the spring; the body quivering and the tail vibrating with emotion, they bound on the moving leaf, and again spring forward at another. Rengger saw young jaguar and cugars playing with round substances like kittens.

Young lambs collect together on the little hillocks and eminences in the pastures, racing and sporting with each other in the most interesting manner.

Birds of the Pie kind are the analogues of monkeys, full of mischief, play and mimicry. There is a story told of a tame magpie which was seen busily employed in a garden gathering pebbles, and with much solemnity and a studied air dropping them in a hole about eighteen inches deep made to receive a post. After dropping each stone, it cried currack! triumphantly, and set off for another. On examining the spot, a poor toad was found in the hole, which the magpie was stoning for his amusement.



SOUTH DOWN SHEEP.

The South Down sheep, according to one of the best judges as well as extensive breeders of them, Mr. Ellman, should have the head small and hornless, the face speckled or grey, the under jaw fine and thin, and the whole space between the ears well fortified with wool; the eye full and bright; the neck thin towards the head, but enlarging towards the shoulders, and then broad and high; the chest wide, deep, and projecting between the fore legs; the shoulders level with the back, bowing outwards from the top to the breast, leaving room for a springing rib beneath; the rib coming out horizontally from the spine, and the last projecting from the rest; the back flat from the shoulders to the tail; the loin broad and flat; the hips wide; the belly as straight as the back; the legs neither too long nor too short, fine without weakness, and of a speckled or dark color; the belly well defended with wool; the wool coming down before and behind to the knee; and short, close, curled, fine, and free from spiky projecting fibres; the flesh fine grained and of excellent flavor. Fat weathers used to average about eighteen pounds per quarter; but this has been considerably increased by late attempts to improve the size of the carcass.

Three sheep were exhibited at the Smithfield Cattle Show England, in 1835, the largest of which weighed 294 pounds, and the smallest 283 pounds.

With the increased weight of carcass, the wool has also increased in weight and length of fibre. It rarely used to be more than two inches in length—it may now be averaged at three inches and a half. It used to be employed in the coarse cloths, and perhaps a small portion of it found its

way into the finer cloths—it now has become a combing wool. It is valuable in carpets, flannels, and worsted goods of every description. It has changed its character. It is more extensively useful; and, considering the increased weight of the fleece, and that of the carcass, and, more especially the early maturity of the animal, the South down sheep is progressively and decidedly improving.

These sheep have been bred for ages past on the chalky soil of South Downs, in Sussex, England, and on such short pasture, and in such exposed situations, they are perhaps the most valuable breed in the kingdom; but they are spreading fast, not only into similar districts, but into countries better calculated for long-wooled and larger sheep.

TOMATO FIGS.

We have seen and tasted those delightful figs referred to in the following article from Hovey's excellent Horticultural Magazine; and endorse all which he says in their favor. We hope that those who raise abundance of tomatoes will save this recipe, and try the experiment, if only on a small scale.

Recipe for Tomato Figs.—Pour boiling water over the tomatoes, in order to remove the skin; then weigh them and place them in a stone jar, with as much sugar as you have tomatoes, and let them stand two days; then pour off the syrup, and boil and skim it until no scum rises. Then pour it over the tomatoes, and let them stand two days as before; then boil and skim again. After the third time they are fit to dry if the weather is good; if not, let them stand in the syrup until drying weather. Then place on large earthen plates or dishes, and put them in the sun to dry, which will take about a week, after which pack them down

in small wooden boxes, with fine white sugar between every layer. Tomatoes prepared in this manner will keep for years.

A few apples cut up and boiled in the remainder of this syrup make a very nice sauce.—*Mrs. Eliza Marsh.*

It is only necessary for us to add, that the Committee of the Massachusetts Horticultural Society awarded Mrs. Marsh the Society's Silver Medal for excellent specimens exhibited November 29.—They were tested by the Committee, and pronounced to be superior to any they had ever seen. They were put up in small boxes, and to our taste were far better than two-thirds of what are sold in our market for the best Smyrna figs.—*Ed. Horticultural Magazine.*

For the New England Farmer.

SONG OF THE FARMER.

BY THE "PESANT BARD."

Give to the lord his palace grand,
And halls of splendid pride;
A fig for all his dignities,
And all his pomp beside!
Give me the FARMER'S peaceful home,
Beneath the maples high,
Where Nature's warblers wake the song,
The waters prattling nigh.

The citizen may love the town,
And Fashion's gaudy show;
The brilliant pageantry of Art
May please the eye, I know;
But NATURE'S charms delight the heart,
All simple though they be;
The acres broad, the streamy vales,
The lowing herds for me!

What though the bronze is on our cheek,
Toll-calloused is our hand,
With honest pride we stand erect,
The nobles of the land;
For "patriot TRUTH," that spirit bright,
In this wide world so rare,
Points proudly to the Farmer's home,
And cries,—My own are there!

CHORUS.

Then here's to him who tills the soil,
The true, the strong, the brave!
Without him AYE would fly the land,
And Commerce leave the wave;
And yet no frown of haughty cold
Distinguishes his manly brow;—
Hail to the FARMER! thrice all hail!
Lord of the mighty plow!

HOW TO GET RID OF RATS.—Prof. Dascom, of Oberlin, in a letter to the *Ohio Farmer*, says:

"Would it not be well to call the attention of your readers to the ease and certainty with which they may be relieved from the annoyance of the large brown rat. This impudent intruder often visits my laboratory and other premises. As they come singly, I 'take off' each, the night after I discover signs of his presence, in this wise: I take half a tea spoonful of dry flour or Indian meal on a plate or piece of board, and sprinkle over it the fraction of a grain of strichnine. This is set in a convenient place, and I invariably find the culprit near the spot dead in the morning. The peculiar advantage of this poison is, it produces muscular spasms, which prevent the animal from reaching his hole to die and decompose. It is needless to add that such a violent poison should be used with care."

EXTRACTS AND REPLIES.

LEACHED ASHES—WHEAT.

MR. EDITOR:—As you are liberal in answering the inquiries of the inexperienced, I should be very glad to be told through the columns of your truly interesting and useful paper, the *New England Farmer*, whether leached ashes can be used with profit as a top-dressing on grass lands; if so, when and how they be applied? I should be pleased, and I presume many of your readers would be pleased, to hear from your field of "Blue Stem Wheat as handsome as ever stood on the ground," and a little instruction on the subject of raising wheat would be gratefully received, as I should like to sow a little this fall.

INQUIRE.

Raynham, Aug., 1854.

REMARKS.—Leached ashes are excellent as a top dressing for grass lands. Apply them in the fall, if convenient, if not, at any other time.

The field of Winter Blue Stem wheat alluded to will turn out about twenty bushels to the acre; the drought affected it materially. The day on which it ought to have been cut was the 25th of July, and on that day it rained and continued sultry for nearly a week, during which time the straw rusted a little, and the kernel undoubtedly received no benefit from it after that took place. We have given in several recent numbers of the *Farmer* all that seems necessary to be said at present upon the cultivation of the wheat crop.

COWS SHEDDING MILK.

One of your readers of the *New England Farmer* would like to know the best mode to prevent cows from shedding milk—any information from your numerous readers on the above subject will be thankfully received.

DERBY SMITH.

Derby, Aug., 1854.

TYING DOWN BUDS.

MR. BROWN:—Last season I noticed that some of the buds I had set commenced growing. As an experiment (with me) I tied down the buds that had started by passing some matting around the stock and directly over the growing buds. This stopped their growth. This spring they started equally as well as those that did not start prematurely. This season (rather early) I inserted six buds of the Queen of the Prairie Rose into one stock of another rose; they all commenced to grow. I tied down five of the buds, as above; these from pressure remain dormant, while the one not tied, has grown some six or seven inches.

Windsor, Vt.

E. W. SMITH.

KENTUCKY OATS.

Enclosed I send you a head from my field of Kentucky oats, plucked green, and "many such might have been seen." On it I find 160 pods of kernels nearly all of which contain two perfect kernels. The head measures 16 inches, consequently when fully ripe would have contained not less than 240 perfect seeds of its own kind. I have seen ten heads from one seed, the smallest of which contained 56 pods and the largest 189. The others ranged between these two extremes. In extra seasons I have weighed them at 49½ lbs. per bushel

—average, say, about 43 lbs. I have this year on hand for seed, about 400 bushels, which I shall be ready to distribute among farmers in a few weeks, as soon as they can be thrashed. They grow on all sides of the stem, in the same kinds of soil, and yield per No. bbls., about the same as common oats. GEO. F. NUTTING.

Randolph, Vt., 1854.

TO PREVENT FOWLS FROM SCRATCHING.

A simple, cheap, and effective method of preventing fowls from scratching in the garden or field. Take strips of sheep or calf skin, soft and pliable, cut a slot in each end and noose it around their ankles, so that the *step* may be about 4 inches long and *no more*. As all fowls necessarily spread their feet to the utmost when they scratch for seed or insects, it will be seen at once that these operations must be effectually curtailed. Those who have conveniences for confining or feeding their hens, will not need this method. But there are many who have not such contrivances, and to them I would recommend its trial. While it prevents the *injury* they can do, it also permits them to roam for their food, &c., without the cost of feeding, &c. After suffering several dollars damage the present season, this plan came to my mind and I cheerfully recommend it to others.

G. F. N.

MANURE FOR WHEAT.

MR. EDITOR:—A few weeks since one of your agents persuaded me, somewhat against my own judgment, to become a subscriber for the "*New England Farmer*." Against my judgment I say, not because I had any doubts with regard to the value of your excellent paper, but I felt that I had already as much capital invested in newspapers as I could well afford. But I have not for a moment regretted that I concluded to take it, and I hope I shall never be deprived of its welcome weekly visits while I am engaged in agricultural pursuits. (a.)

My object in this communication is to ask of yourself or some of your correspondents a word of advice that I have not yet been able satisfactorily to glean from any papers that I have yet seen. I have a piece of land that geologists would call a clayey loam, situated where it cannot conveniently be manured in the ordinary way. I have plowed a part of it on which I design to sow winter wheat. Now what kind of fertilizer would you think best to use, taking into the account its cost, its effect upon the wheat crop, and also upon the land for some years after? And should it be applied in the fall or spring? (b.)

Fairlee, Vt., 1854.

JOHN STRATTON.

REMARKS.—(a.) That is the true way to test any paper—take it and try it. If you are satisfied that you do not get three or four times the value of its cost, why then discontinue it.

(b.) If you wish to manure this land in the most profitable manner, apply to the acre,

Mexican Guano.....	300 pounds.
Ground Bone, (dry).....	200 "
Ashes.....	15 bushels.
Lime.....	6 "

The land should be plowed not less than 8 inches deep; 12 inches would be better; should be thoroughly pulverized, and fertilizers worked

in 3 or 4 inches deep, or even a little more, immediately before sowing the wheat. Sow early in September. But you must look well to the drainage, and see that there are no hollows where surface water will collect and freeze. Indeed, the land should be underdrained, if at all springy. If you take this course, please give us the result.

CHIP DIRT.

I wish to inquire how chip dirt will do to put into the pig pen with meadow muck, for the pigs to work over? The chip dirt has been accumulating for two or three years, is composed chiefly of rotten pine, and is pretty well pulverized. My land is clay loam; I generally dung my corn in the hill, as the ground is new, and I can get better crops by so doing. G. D. S.

West Danville, Aug., 1854.

REMARKS.—The fine portions of the chip dirt may be used to advantage in the pig pen. The coarser parts make a good mulch for young trees.

IS FARMING PROFITABLE?

We often hear the affirmative of this decided, and by persons, too, whose opinions are entitled to credit. We do not prefer to discuss this subject, but to give practical illustration of it, and let our readers make the application.

Deacon Brooks Shattuck, of Bedford, bought and moved upon his farm eleven years since. It was a rough farm, for which he paid \$2300. He was a manufacturer, and had shattered his health in a mill at Lowell. He paid in cash \$900, leaving a debt to be paid from the farm of \$1400. During that eleven years he has supported a large family, educated his children, having one son in college: has contributed liberally to the charities of the day; has been a liberal supporter and patron of Agricultural Societies, spending time and money freely, to further these objects; in a word, he has been an active, and industrious, *book farmer*. Now mark the result. He has sold from his farm \$100 of land and \$300 worth of wood, timber, &c., standing upon the same, which may not be reckoned as the result of agricultural labor. He has paid the \$1400, and a few weeks since sold his farm for \$3700. Giving a balance on his farm of \$1500, for improvements and rise in value of lands.

To recapitulate, receipts from farm,

Land, wood and timber sold.....	\$400
Debts and interest paid.....	1800
Balance on sale over cost of farm.....	1500
Leaving the snug little sum of.....	\$3700

for the receipts on the purchase and carrying on a farm for eleven years, besides the support of a large family. In addition he has *recovered his health*, so as to labor daily upon his farm.

Is there profit or not in books!—*Granite Farmer*.

EXTENSIVE CORN FIELD.—The beautiful farm belonging to Wm. S. Sullivant, Esq., containing 1,200 acres, adjoining the town of Franklinton, has been rented to Messrs. Dixon, Merrick and Stitt, of this city, and from the manner in which it has been worked this season, they may well claim to be classed among the model farmers of the day.

Notwithstanding the continual wet weather about planting time, they succeeded in putting in six hundred acres of corn, and by constant care and attention, they can show the tallest corn in the neighborhood. Fifteen shovel plows and three cultivators, worked by eighteen men and twenty-five horses, are kept in constant requisition; and the result is that scarcely a weed can be seen in the well plowed furrows. Twenty-five German girls follow the plow, and do the hoeing, for which they receive 62½ cents per day. The men receive \$20 a month. The view of the mound upon which the "log cabin" stands, is exceedingly beautiful. Far as the eye can reach, as you look down towards the "sunny banks" of the Scioto, the summer breezes stir the waving corn.—*Columbus (Ohio) State Journal.*

WAGES.

[The Hon. Amasa Walker, late Secretary of the State of Massachusetts, has delivered a lecture before the Commercial and Nautical Institute of Boston, upon the subject of *Wages*. We take pleasure in extracting some portions of it into our columns:]

NOMINAL AND REAL WAGES.

There is often a considerable difference between nominal and real wages, or between the wages of the employee when reckoned in money, or when realized in such commodities as his wants require.

Man does not work for money, but for that which money will buy. It may happen that with high money wages he may get very low merchandise wages; nay more, it may be true that when he has the largest nominal, he will generally have the smallest real wages.

As this question is one of fact, I have taken the pains to ascertain the wages of labor at three different periods, and also the prices of ten different commodities, such as the labor would naturally purchase at the same periods, and the result is as follows:

	Wages. \$1.25 per day. 1836.	Wages. \$1 per day. 1840.	Wages. \$1 per day. 1843.
1 barrel flour,	\$9.50	\$5.50	\$4.75
25 lbs. sugar, at 9c	2.25	2.00	1.62
10 gals. molasses, 42½	4.25	2.70	1.80
½ bbl. pork,	4.50	8.50	5.00
14 lbs. coffee, 12½	1.75	1.50	5.00
25 lbs. rice,	1.25	1.00	75
1 bushel corn meal,	96	65	62
1 do. rye meal,	1.08	83	73
30 lbs. butter, 32c	6.60	4.80	4.20
30 lbs. cheese, 10c	2.00	1.60	1.40
	\$44.00	\$38.98	\$32.00

Such are the wages of a common laborer in Boston in the years mentioned above, and such the prices of the commodities specified.

It appears then that in 1836 it required the labor of 34½ days (omitting in all cases unimportant fractions) to pay for the above commodities; while in 1840 it required only the labor of 29 days, and in 1843 that of only 23½ days to pay for the same: and thus the important fact is disclosed that while the nominal rate of wages was higher by 25 per cent. in 1836 than in 1840 or in 1843, yet real wages were 22 per cent. in 1840, and 29 per cent. in 1843, higher than in 1836.

This affords a striking illustration of the difference between money wages and corn wages, as they are sometimes called; or in other words, be-

tween the nominal and actual reward which the laborer receives for his services.

We do not say that there would be throughout as great a difference as shown by the foregoing table, because all commodities would not vary perhaps as much within a short period as those we have selected. Rent and some other charges which the laborer must incur, would not perhaps be as much affected by fluctuations in prices, yet the foregoing undoubtedly affords an approximation to the general fact, and is sufficient not only to establish our principle, but to prove that the subject is worthy the attention of political economists as well as laborers.

Another obvious difference between nominal and real wages arises from a mere change of location. For example, a carpenter who could obtain but \$1.25 in Vermont, might by going to New York city get \$2, or to New Orleans \$2.50; yet it would be found, perhaps, that if all things were taken into the account, if the expenses of maintaining himself and family in health and comfort were well considered, the wages obtained in Vermont might be greater than in New York or New Orleans.

PROPORTIONATE RISE AND FALL OF WAGES.

Although wages rise and fall with the general rise and fall of commodities, they do not do so in equal proportion. The fact is one of common observation; but the reason of this variation we don't recollect to have seen stated. It is, however, apparent on a little reflection. For all material products, there is both an actual and a speculative demand—for labor there is only an actual demand. When business begins to be particularly prosperous, and there is a general demand for all kinds of merchandise, prices will gradually begin to improve. This gives rise at once to a speculative demand, for to buy will be to realize and advance; the larger the purchases, the greater the profits; for every operation pays. The speculative demand goes on until every article bought and sold as merchandise goes up to its highest limit.

But no one speculates in wages. No one can, if he would, purchase a hundred thousand dollars' worth of labor and hold it for an advance as he can of every article that the laborer consumes. Of course, labor has no advantage of this kind of demand which affects other things, but must rely entirely on that which is immediate and actual. Therefore, a general rise of prices must always operate against the laborer or person employed on salary or wages.

But wages not only never rise so much as other commodities, but never rise so soon. The reason is that the rise of commodities is greatly accelerated by the speculative demand, while labor is not as before stated, affected by that kind of demand at all. Hence, it does not rise until speculation has engendered a spirit of extravagance and increased consumption, and then wages take an advantage about half as great on an average as that of merchandise and other things.

Wages fall sooner, because merchandise may be and is held for high prices, if need be. Its fall is broken by the disposition and ability of the owners to hold on, and as far as possible prevent loss, but the laborer cannot hold on—he must sell his commodity at once for the most it will bring.

It is for this very obvious reason that wages, in

times of depression, must fall, not only sooner, but lower than property in general.

This was shown in 1837 and 1838, when the wages of common labor in Boston fell from \$1.25 to an average of 92 cents, making a difference of more than 25 per cent., while commodities fell but about 5 per cent. Laborers therefore suffered greatly during those two years, as will be recollected by those familiar with the events of that period.

UNHEALTHY TRADES.

Those occupations which are unhealthy, which though not immediately hazardous, nevertheless abridge life, ought to command more than the ordinary rate of wages. If a man is liable to be made sick, and consequently exposed to loss of time and expense of medical attendance, he should be compensated for such liability. If he is likely to shorten life in a particular employment, that should be a matter of consideration in determining the rate of wages.

Regarded in an economical point of view, merely, it is certain that on this account some laborers should receive much higher compensation than they do at present: and to determine what that increased pay should be, we must ascertain the value or expectation of life in the different occupations. To do this as well as we are able in this country we have had recourse to the official registration of births, marriages and deaths, made by authority of the State of Massachusetts, and published annually by its Secretary. We take the Eleventh Report, which gives the results of the last eighty years and eight months, ending December 31, 1851.

From this Report it appears that agriculturists live to the average age of 62.93 years; blacksmiths 51.44; shoemakers 43.12. We take these three examples, because they seem best to represent average employment. The first is the most healthy, the second of a medium character, and the third the most unhealthy of all the principal occupations. From this it will appear that the expectation of life is, in round numbers, for a

Farmer at the age of 21.....	42 years.
Blacksmith, do.....	30 "
Shoemaker, do.....	22 "

The agriculturist then, it appears, has the advantage over the blacksmith of 13 years, or 3½ per cent.; and therefore, if the blacksmith or shoemaker, receive wages which shall, in the aggregate during life, amount to as much as those of the farmer, they must be correspondingly higher.

-According to the foregoing, if we allow 300 days to the year, and take the wages of the agriculturist to be \$1 a day, the different occupations should stand as follows:

Farmer,	43 by 300 equal 12,900, at \$1 per day, is \$12,900
Blacksmith,	30 by 300 equal 9,000, at \$1.43½ per day, is 12,900
Shoemaker,	22 by 300 equal 6,600, at \$1.93½ per day, is 12,900

Such then *should* be the relative value of the wages of these several occupations, regarded merely as a question of production. If the blacksmith or the shoemaker does not receive as high proportional wages as indicated above, he is, as compared with the farmer, working for less than a fair price, estimating life as valuable only for earning a given amount of money.

But all mechanics, it is clear, ought—other things being equal—to receive a higher rate of

wages than the man who works on the farm, on the ground that they have been at the expense of learning trades, for which they should be compensated by larger pay; for a trade is capital invested, for which a profit may be rightfully claimed, in the shape of enhanced wages.

As an economical question, then, the expectation of life should be a matter of consideration with every one in choosing an occupation and in determining the rate of wages. That this is not now the case, is very evident, because the wages paid for labor in an unwholesome employment, do not correspond with the abridgment of human life consequent thereto; so that the laborer loses not only a good part of his life, but also a share of the wages he ought to receive while he does live. As for example, the shoemaker does not receive, take the country through more than \$1.42 per day; while according to the foregoing table, he should receive \$1.93½ per day. If so, then he loses 63 cents per day in wages, and 21 years of his life into the bargain. The same relative difference might be shown in regard to all other occupations.

Agriculture is evidently the normal employment of man—that in which he enjoys the greatest health and lives the longest. Every other calling is unwholesome to the exact extent which it departs in its condition from the agricultural, and therefore the rate of wages should be adjusted to a scale constructed on this principle. As things now are, all mechanics and persons employed in close rooms are, as a general fact, very much underpaid. This whole class live only to the average of 46 years, 18 years less than the agriculturist. They should receive greater wages, and work less hours per day; they would thus prolong their lives, and get a fair compensation for their services.

For the New England Farmer.

ORNE'S EARLY APPLE—ENGLISH WHEAT PLUM.

MR. BROWN:—I send you two specimens of *Orne's Early Apple*—which in my opinion is a fine fruit. The original tree stands in the garden of Mr. A. C. ORNE, of this place. Its true origin is not exactly known; some say it was imported from France by the late Capt. HENRY QUINCE some years since—others that it is a native seedling; be this as it may, it is, I think, worthy of cultivation. I send you also a bunch of the true *English Wheat Plum*, which are not yet quite ripe, consequently you will not be able to form an opinion in relation to their merits; it is a good plum, and well worth cultivating.

ANDREW LACKEY.

Marblehead, Aug. 29, 1854.

REMARKS.—We agree with you, Mr. LACKEY, that the fruit sent is highly worthy of cultivation. The apple is new to us—the plum is an old and well-known variety, and scarcely excelled, we think, by any that grows.

FALL PLANTING.—This sounds strange, probably, but it has been, it appears, successfully practiced in respect to potatoes.

A gentleman writes in the *Maine Farmer*:—I

left last fall some potatoes in the ground—in July they were more than as big again as my others. He strongly recommends to all farmers to plant some in the fall, and try the experiment.

I have seen some that others raised, he says, by planting in the fall, and they were excellent—better potatoes than he ever saw—very large, sound and handsome.

He recommends to plow a furrow, drop in the potato whole, cover it with strong manure, and then cover the whole carefully with rich earth.—By so doing you may have handsome, large and early potatoes. If this be so, it must be a great improvement in the raising of this valuable esculent root. Would it not be well for farmers to give it a thorough trial!—*Dover Gazette.*

THE MOQUIS.

Far away beyond the South Pass, on the head quarters of Gila River, lives John Bridger, a trapper of the plains and mountains for more than 40 years. It is admitted by all trappers that he is better acquainted than any living man with the intricacies of all the hills and streams that lose themselves in the great basins. While trapping on the tributaries of the Colorado, an Indian offered to guide Mr. Bridger and party to a people living far up the desert, with whom he could barter.

The proposition was accepted; and after providing themselves with dried meat and water, they struck right out into the heart of that great desert, where no white man has before or since trodden, and which the hardy mountaineers will only venture to skirt. After five days' travel the party arrived at three mountains or buttes, rising in grandeur in that solitary waste. These mountains were covered with a diversity of forest and fruit trees, with streams of the purest water rippling down their declivities. At their base was a numerous agricultural people, surrounded with waving fields of corn and a profusion of vegetables. The people were dressed in leather; they knew nothing of fire-arms, using only the bow and arrow; and for mile after mile circling those buttes were adobe houses two and three stories high. Mr. Bridger was not allowed to enter any of their towns or houses, and after remaining three days, bartering scarlet cloth and iron for their furs, he left them, not, however, before being given to understand that they had no communication beyond their desert home. That these are the people that once inhabited the banks of the Gila and the Colorado, and left these monuments of wonder, the "Casa Grand," which so deeply attracted the followers of Fremont and Doniphan, and then vanished like a dream, there can no longer be a doubt.

Months after this conversation with Bridger, I had another with Mr. Papin, the agent of the American Fur Company. He told me that another of the party, Mr. Walker, the mountaineer, after whom one of the mountain passes is named, and who is known to be a man of truth, had given him the same description of these isolated people, and in my mind there is not a shadow of doubt of their existence.

According to Capt. Walker, through the very centre of the Great Basin runs the Rio Colorado Chiquito, or Little Red River. It takes its rise

in the mountains that skirt the right bank of the Rio Grande, flows almost due west, and empties into the Colorado at a point on the same parallel of latitude with Walker's Pass. About 100 miles north of this, and running almost parallel with it, is the river San Juan. Each of these streams is about 250 miles long. Between them stretches an immense table land, broken occasionally by sierras of no great length, which shoot up above the general elevation. About half way between the two rivers, and midway in the wilderness, between the Colorado and the Rio Grande, is the country of the Moquis. From the midst of the plain rises abruptly on all sides a butte of considerable elevation, the top of which is as flat as if some great power had sliced off the summit. Away up here the Moquis have built three large villages, where they rest at night perfectly secure from the attacks of the fierce tribes who live to the North and East of them. The sides of this table mountain are almost perpendicular cliffs, and the top can only be reached up a steep of steps, cut in the solid rock. Around its base is a plain of arable land which the Moquis cultivate with great assiduity. Here they raise all kinds of grain, melons, and vegetables. They have also a number of orchards, filled with many kinds of fruit trees. The peaches they raise, Captain Walker says, are particularly fine. They have large flocks of sheep and goats, but very few beasts of burden and cattle. They are a harmless, inoffensive race, kind and hospitable to strangers, and make very little resistance when attacked.

The warlike navajoes, who dwell in the mountains to the north-west of them, are in the habit of sweeping down upon them, every two or three years, and driving off their stock. At such times they gather up all that is movable from their farms and fly for refuge to their mountain stronghold. Here their enemies dare not follow them. When a stranger approaches they appear on the top of the rocks and houses watching his movements. One of their villages, at which Capt. Walker stayed for several days, is five or six hundred yards long. The houses are generally built of stone and mortar, some of them adobe. They are very snug and comfortable, and many of them are two and even three stories high. The inhabitants are considerably advanced in the arts, and manufacture excellent woollen clothing, blankets, leather, basket work and pottery. Unlike most of the Indian tribes in this country, the women work within doors, the men performing all the farm and outdoor labor. As a race they are lighter in color than the Digger Indians of California. Indeed, the women are tolerably fair, in consequence of not being so much exposed to the sun. Among them Captain Walker saw three perfectly white, with white hair and light eyes. He saw two others of the same kind at the Zuni villages, nearer the Rio Grande. They were no doubt Albinos, and probably gave rise to the rumors which have prevailed of the existence of white Indians in the Basin.

The Moquis have probably assisted nature in levelling the top of the mountain as a site for their villages. They have cut down the rocks in many places, and have excavated out of the solid rock a number of large rooms for manufacturing woollen cloth: Their only arms are bows and ar-

rows, although they never war with any other tribe. The Navajoes carry off their stock without opposition. But unlike almost every other tribe of Indians on the continent, they are scrupulously honest. Capt. Walker says the most attractive and valuable articles may be left exposed and they will not touch them.

Many of the women are beautiful, with forms of faultless symmetry. They are very neat and clean, and dress in quite a picturesque costume of their own manufacture. They wear a dark robe with a red border, gracefully draped so as to leave their right arm and shoulder bare. They have most beautiful hair, which they arrange with care. The condition of a female may be known from her manner of dressing the hair. The virgins part their hair in the middle behind and twist each parcel around a hoop six or eight inches in diameter. This is nicely smoothed and oiled, and fastened to each side of the head, something like a large rosette. The effect is very striking. The married women wear their hair twisted into a club behind.

The Moquis farm in the plain by day and retire to their villages on the mountain at night. They irrigate their lands by means of the small streams running out of the sides of the mountain. Sometimes when it fails to snow on the mountains in winter their crops are bad. For this reason they always keep two or three years' provisions laid up for fear of famine. Altogether, they are a most extraordinary people, far in advance of any other aborigines yet discovered on this continent. They have never had any intercourse with the whites, and of course their civilization originated with themselves. What a field is here for the adventurous traveller.

For the New England Farmer.

MARROW SQUASH.

This delicious vegetable is grown in great abundance, on the fertile fields of Marblehead.—While the crops in other places are cut off by the bug on the leaf, or the maggot at the root, there, it would seem, the plants find no obstacle in the way of going ahead.

Perhaps it may interest some to know how this is brought about. As I passed the field of Mr. HATHAWAY, situate on the right hand side of the road, as you go from Lynn to Marblehead, I saw more than two acres covered with squashes, as luxuriant as though no drought had prevailed. On inquiry of the proprietor, I learned that the sod was turned in the spring, and pulverized with a fair coating of compost thereon, and the seeds were planted in hills eight feet apart, leaving three plants in a hill. Now the ground is covered with an abundance of squashes, varying in size from three to ten pounds each, estimated to exceed ten tons to the acre, commanding in the market \$35 a ton—amounting to \$300 an acre. This was not the only field that I saw, others of like character are to be seen. On the ground of Mr. WASHBURN, Mr. MASON, Mr. HOWE, Mr. STONE and Mr. BROWER, and others in the neighborhood—though not so abundant. Whether those crops are brought about by a peculiarity in the soil—or in the manure applied, or in the vigilance with which they are tended—there they are to be seen by any one who will look at them.

Aug. 21, 1854.

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For the New England Farmer.

CITY MECHANICS AND COUNTRY FARMERS—No. 3.

Some months since, two articles were published in the *Farmer*, with the above caption, and the writer intended to furnish two or three others on branches of the same subject.* The third number, in which it was proposed to attempt a comparison of the wages, or incomes, of the two classes, was commenced, but having less than usual leisure, and meeting with unexpected difficulties and disappointments in obtaining the necessary facts, it has not been finished. Having recently spent a week in visiting family connections in Massachusetts and Vermont,—about one-half of whom are mechanics and the other half farmers,—I propose to give some account of the journey, and of the impressions which my intercourse with the families of both mechanical and agricultural friends have left upon my mind, as a mode of arriving at conclusions on the relative profits of mechanical and agricultural industry, much more easy if not as satisfactory, as that by the dull path of dead statistics and dry figures.

My present journey to Vermont was taken after a confinement to a single dingy room of a city shop for something over six years, interrupted by only one whole day's absence of working time. When I left Vermont, railroads were commenced there, but the cars had not passed its boundaries.—While, therefore, to others, the fact of riding from Boston to Windsor, by way of Bellows Falls, between a late breakfast and an early dinner, has been for years an old story. I enjoyed the contrast between this style of travelling and that by staging, in all its novelty, freshness and excitement.

Landed amid the dusty labyrinths of the "Windsor Depot," I could not help thinking, as I gazed around me, that poor "Vermont Central" might well say to herself, "Deliver me from my friends!" Here, where corn and potatoes loved to grow in old times, and where they ought to be cultivated still, stands a building large enough for the business of some Grand Trunk Railway termini.—Perhaps the stockholders have found out by this time what this huge pile was made for; if so, the fact ought to be recorded, lest future antiquarians be as much troubled to determine its object and purpose, as they are to decide what the Egyptian monuments were built for.

After making a few calls on old friends in the "Street,"—none more *satisfying*, by the way, than that at the "Windsor House,"—we started on foot for the pinnacle of old Ascutney, whose jagged sides and cap of blue we had been "calculating" as the cars wormed their way up the river from the Falls. The prospect from this mountain is delightful. Spurning all "connection with any other concern," it rises solitary and alone from the rich intervals of the Connecticut valley. Other mountains, by aid of combinations and "chains"—by "piling Alps on Alps," may rear their heads higher into the clouds; but these accompaniments usually interrupt and mar that wholeness of view which is enjoyed on the sugar-loaf, shaft-like Ascutney. No Windsor county boy, whose imagination first tried its powers in peopling Ascutney with Indians and bears, can feel that he has really visited the "haunts of his childhood" without standing upon the summit of this mountain.—Within a few years a still better path has been

opened than that which was made at the time of La Fayette's tour, in hopes that he would be able to ascend, which however he did not undertake. Ladies and feeble gentlemen may now nearly or quite reach the summit on horseback.

The beautiful summer day which we commenced in the vicinity of Boston, was fading into night as we reached Brownsville, some six or seven miles from Windsor, without counting about as many more miles that we had walked in ascending and descending the mountain—having accomplished this day what would have required, when we were a boy, at least one-half of our week's furlough. Starting the next morning at day-light, we soon reached the out-posts of our "friends and connections."

And here we must comply with the reader's desire to "be excused," while we do up our cousin-ing. Had we the ability to take him with us over the hills and through the valleys of these Green Mountains,—to show him the prospects,—the homes, the fields, the "butteries" we are about to visit, surely he would ask no such thing. But as we have little skill in this line, we will let him pass over the few days we spent in Reading, Plymouth, Woodstock, Ludlow and Bridgewater, in which latter town, unless we are mistaken in our application of the initial letter, we passed the fine farm and residence of your correspondent "J.," who, although living but a short distance from the gold diggings which a New York company is making great preparations to open in this town, was pointed out to us contentedly "dressing" his garden.

We returned by way of Brattleboro', where we stopped over one train, and where in our rambles through the village, we saw a mowing machine, that somehow reminded us of your editorial associate who lives in this town, and raised a regret that we had not time, nor any right that we could think of, to give him a call; for we stopped here to visit mechanics, not farmers. From Brattleboro' we passed down the river, for the first time to Greenfield, and can say we believe the Connecticut valley to be richly entitled to all the eulogies it receives from travellers. We saw more broom-corn this afternoon than in all our life before, and at this season it checks the fields beautifully. Taking the cars on the Vermont and Massachusetts road, we thought the irreverent problem of two hills without a valley was about to be solved. For some miles we passed one part of the distance on the roofs of bridges, and another through deep cuts in the ragged spurs of the mountains that seemed interlocked purposely to make it impossible to build a railroad there. No wonder that road don't pay! As a matter of curiosity, I would advise travellers who can do so, to take this road in the course of their tour.

Thus much as to the incidents of a journey that afforded us much gratification.

As to the question of the relative profits of mechanical and agricultural pursuits, so far as it can be indicated by the respective circumstances of some half-a-dozen families of each profession among my connections, I have no hesitation in saying that the farming portion are decidedly better off than the mechanical—especially is this the case with those of them who have large families. As journeymen, our farming friends envied us our larger wages; as heads of families, we may well

envy their comparative independence. They speak of the superiority of the schools our children enjoy; we feel more and more sensibly as our boys, in particular, grow older, the superiority of the training of the farm over that of the street, for our children. But throwing aside all considerations of this kind,—overlooking the ominous fact that the successful business men of cities and villages are composed almost entirely of boys raised upon country farms, and confining ourselves entirely to dollars and cents, the advantage is clearly with farmers, so far as my friends are concerned; and, I may add also, so far as the acquaintances of my boyhood are concerned. Sell them off at auction to-day, and the farmers will realize the most money. But that is not all.—They are incomparably better circumstanced for sickness and old age than we. Their homes may be humble, but they are their own; while, with few exceptions, though our floors may be carpeted, the roof that shelters us is owned by another man.

I might easily, and with perfect truthfulness, draw still stronger contrasts in favor of the profit of agriculture from the actual circumstances of my friends at this time, but I have no disposition to particularize, where general inferences may seem almost to exceed the limits of propriety.

But if there be general truth in the adage, that "the proof of the pudding is in the eating," I do not see why we may not apply it to the condition of the families of farmers and mechanics, in determining which profession is preferable in the long run! Perhaps the following incident, which occurred on the evening of my arrival in the city, may have first excited my curiosity to know more of the actual condition of the families of city mechanics. My little ones, fatigued by a day's journey, were somewhat worrisome, as we took seats in an omnibus, and they immediately attracted the notice and sympathy of an aged woman seated near us, and who soon became sufficiently familiar to inquire my business. I told her what it was. Raising up both hands, she exclaimed, "Poor man, I pity you, and your wife, too! Why, my poor husband was a — too, and it killed him; he used to work all day, and take on all night in such misery, that it is not wicked to say, I was glad when he was dead. And these children, pretty little dears, to be turned into the streets of this wicked city——." Her remarks were cut short by our arrival at our lodgings. Such an earnest greeting by the widow of a city mechanic, as we were crossing the threshold of city life, was not to be forgotten by myself or family. Would a stranger-family that should enter any agricultural neighborhood in the country be met with such doleful admonitions!

Were county people as careful to ascertain the condition of aged city mechanics, or even that of those with large families, as they are to know how many dollars can possibly be earned in a single week; or did they inquire why it is that mechanics so often keep poor on their large wages, while farmers grow rich on their very small pay, many a young man who is now hanging about our intelligence offices, would have staid upon the farm contentedly.

I must allude to one complaint that I heard made by my agricultural friends, and which sounded very novel to me. They said it was

somewhat difficult now to let their money at 6 per cent. A state of things very different from that which existed when I was a boy. Then, people were mostly borrowers, though but little money was to be had at any price. Farmers who wished to increase their stock, or to procure a few bushels of grain for seed, often paid at a rate equal to 25 per cent. per annum. The name of Hon. Wm. Jarvis, of Weathersfield, some twenty or thirty miles distant, was better known in this section, at that time, as indicating about the only man who loaned money at 6 per cent., or who paid a silver dollar a day for first rate haymakers, than as the importer of merino sheep, by which he eventually enabled these same farmers to pay up their mortgages and become money-lenders in their turn. And this reminds me of another change that was mentioned. In one school district, in Reading, where thirty years ago there were children enough to fill an ordinary school-house, especially in the winter, there is now not one child living within its limits, and only the remains of a single family, in an extreme corner. The consequence mainly of turning small hill farms into extensive sheep-walks.

A CITY MECHANIC.

Boston, Sept. 1, 1854.

REMARKS—We earnestly commend this article to the consideration of our readers.

ENGLISH VEGETABLES AND MEATS.

We give below, from our own correspondent in Liverpool, a very interesting letter relating to the products of the English markets. Many readers will be surprised—as we have been—at the fact that potatoes, turnips and cabbages are the great staples among the vegetables, and that the variety and excellence of beans, squashes and green corn, are scarcely known in perfection among them.—The apples, pears and peaches, are also inferior to our own. Indeed, these latter fruits, in our own country, vary much in different localities. We never ate an apple, pear or peach, grown south of New York, so high-flavored, and perfectly delicious, as some grown in cold, rocky New England! With the exception of an occasional winter too cold—or of too sudden changes for the peach—both the soil and climate of New England seem adapted to these fruits.

The table alluded to in the letter, gives the prospects of the crops in every part of the kingdom, with the names and addresses of the persons who furnish the information, and is such as may well be imitated here.

LIVERPOOL, August 17th, 1854.

MY DEAR SIR:—I send you an agricultural paper, containing a table of minute and well authenticated statistics as to the "prospects of the coming harvest" throughout Great Britain. It seems to me that the plan of this table is a very good one, and might perhaps be advantageously adopted in a journal like your own. At all events, it

will convey more reliable information as to the probable harvest here, (and this is a subject very interesting to the United States,) than you could obtain from any other source.

The supply of vegetables in an English market is much inferior to the display in our own market-houses at this season. Potatoes are of excellent quality (better than in New England) and average about twenty-five cents a peck; turnips are plenty; and cabbages, in all their more delicate or coarser varieties, are exceedingly abundant.—But these are the great staples in the vegetable line, of an English dinner-table, now that green peas (which are never equal to our own) are going out of season. The bean-tribe is very poorly represented by a few string-beans, which are almost tasteless when cooked; and though shell-beans, occasionally appear, they never have the richness to which an American taste is accustomed. Indian corn in its green state, is of course utterly unknown; and England will never be able to appreciate the luxury of a dish of succatash. All the squash-family are strangers to the English table; although I have been cognizant of an attempt to raise them under glass, and have seen one or two diminutive specimens of the results. One vegetable (or, rather, fungous) delicacy, which we comparatively lack, is the mushroom; and you may just now see bushels upon bushels of these poisonous looking toad-stools, heaped up among the scanty supplies of better esculents. Taking these facts into view, it is no wonder that the Englishman should be a grosser flesh-eater than the American; and it seems very certain that a vegetarian diet can never be a luxurious or a fattening one, in this climate.

As regards fruits, the inferiority is still more lamentable. An untravelled Englishman has no idea of the deliciousness of a peach, a pear, or even an apple; although I have been told of a certain apple called the Ribston pipin, which is said to have been equal to the best of our own, but is now almost extinct. So far as my own experience goes, the pigs of America would not thank you for better specimens of either of these fruits than I have ever seen in England, of native growth, except in a hot-house. It is only by extending the branches of the tree against a brick wall, heated by interior flues, that the horticulturists produce even the semblance of fruit in the open air. Hearing an Englishman praise the flavor of a native peach, I had the curiosity to ask him what was its peculiar characteristic; he answered, "its delicious coolness!" This commendation might have been more appropriately bestowed upon a watermelon! Their strawberries, it must be owned, are very large, but look much better than they taste. But after all, the real wonder is, not at the failures, but at the successes

of English horticulture; for a person accustomed to the tropical heat of our summer months, cannot help being surprised that anything whatever should thrive in the watery sunbeams of what the English call their Summer.

With respect to substantial viands, a much more favorable report may be made. The beef, perhaps, though famous to a proverb, is not very decidedly better than the best of our own; but the mutton is certainly something to rejoice in, and to be proud of. The poultry is inferior; the fowls and turkeys being insipid to the American taste, perhaps from the lack of Indian corn to feed them with. Owing to this insipidity, the English consider ducks a much better dish than chickens.—Rabbits very frequently appear on the table. Hares, at the proper season, are abundant in the market, as well as all other kinds of English and Scotch game. Their venison, however, is deficient in the true game flavor; and, in fact, the English deer can scarcely be regarded as a wild animal, as it has for centuries been almost domesticated in parks, and looks for its feed of oats in winter, as regularly as a horse. Much of the venison that comes to the market is probably stall-fed.

In fish, taking the year through, the English market has more and better varieties than our own. Cod and haddock are abundant, but seldom appear on the tables of the wealthier classes.—There is a good supply of salmon, for a longer season and at a cheaper rate than with us. The turbot and the sole are fish unknown in America, and well-deserve the estimation in which Englishmen hold them. In short, nature seems to have done her utmost to discourage the Graham system of diet in England, both by the deficiency and poor quality of vegetable esculents, and by the abundance and excellence of flesh and fish. In consequence of this state of things, among many other causes, John Bull is likely long to remain the ponderous, slow, thick-witted, but steady and reliable personage, in whom the American recognizes some points of resemblance to himself, but quite as many of marked difference.

Yours truly.

For the New England Farmer.

STATE ALMSHOUSE AT TEWKSBURY.

MR. EDITOR:—It is gratifying to learn from an authority so reliable, as that of Dr. Brown of Wilmington, the flourishing condition of this establishment. That the superintendence may be good, and the accommodations convenient, I have no reason to doubt;—but that the *soil about* is productive, or can be made so by *deep plowing* or otherwise, is to me astonishing. From a time, the memory of man runneth not to the contrary, the Plains of Tewksbury have been spoken of, as barren in the extreme. By what magical application they have all at once become “retentive

and productive,” is worthy of being entered on record, in the next volume of *Agricultural Transactions*, for the County of Middlesex.

From what I had heard, I had supposed there was a great deficiency in an adequate supply of pure water at this Institution. But from the Dr.’s account, it would seem, an ample supply is expected from the wells that *are to be dug*—not from those they already have.

One would think it desirable to look out for water before washing day comes, with such a *dirty set* about, as those inmates are described to be.—But there is no accounting for diversities of tastes. As to the expediency of concentrating so much filth and misery together, instead of continuing it diffused in small parcels, in the several towns of the county, there is room for much to be said.

September 20, 1854.

APPLICATION OF MANURE.

A judicious and well timed application of manure is a subject of great importance to the farmer. If he had a complete knowledge of the deficiency of the soil, and of the organized constituents of his manure, an economical application might be made with comparative ease. But it is not so, and he is compelled to study and experiment, until he becomes practically familiar with this part of his business, and better able to judge what quality is lacking, and what he has in store as a necessary supply.

A powerful fermenting process may be necessary to render a tenacious soil productive, one that shall drive the particles asunder, and “warm up the soil,” as the saying is. The atmosphere plays a lively part in the production of all vegetables as well as animals. Hence the importance of cultivating the soil by plowing, hoeing, &c. Nitrogen in the form of ammonia or some other compound, escapes from fermenting substances. If the process is going on therefore in the soil, the nitrogen will unite or combine with some other substance supposed to be present, and thus form a nutriment for the plant. The escaping and expanding gases have much to do in such a case.—They disorganize the hard and adhesive lumps, and render them so porous, that the air has very free access.

Now if this manure had been applied to the surface, we can readily see that most of its power would have been lost, and its virtue too. So also, if fermented manure had been placed in such a soil, its effect would have been much less than the unfermented, because the former is composed mostly of the ashes of plants and mineral substances, of which the soil may have already a competent supply, and no new power be given by the addition of these comparatively inactive elements.

A different compost is necessary when the *seed* and not the *stalk* is the object of cultivation. The phosphates or phosphoric acid must be present for the formation and perfection of seeds, such as wheat, corn, &c., while for grass designed to be cut for hay, it may not be essential.

In the vegetable world, “like produces like,” and the decay of plants produces food for the reproduction of the same plants, and if they decay upon the soil without loss, the present crop will furnish materials for a larger subsequent crop.—

Where the grape is cultivated in many places, the only manure used year after year is leaves and trimmings of the vines, carefully placed around the roots, and slightly covered to promote their decay.

If we place our corn cobs in a proper state of decay, upon our corn ground, we may perhaps gain more in the end, than we should to have them ground into meal,—or certainly than we should to throw them at random into the compost heap, to be applied without reference to a future crop.—*American News.*

For the New England Farmer.

THE USEFUL AND THE BEAUTIFUL.

BY R. MORRIS COPELAND.

The art of landscape gardening is not only reducible to principles, but these principles, are similar to those which exist in each of the fine arts, and if the practice and the rules can be made to agree, the whole cultivated world may consider landscape gardening a fine art.

My aim is not to condemn any practice or professors, upon unseen and unknown dicta and resolutions, but first to establish certain well defined principles, and to judge all by them.

But before pursuing this any further in the direct line, it seems not unworthy the subject to turn a little aside, and notice both some of the standard works upon Landscape Gardening, and what they teach.

My attention was drawn to this point by an article in the January number of *Hovey's Magazine*, for 1853, written by one who professes to be a practical improver. Many of the ideas contained in it are noticeable, but first let us examine the following paragraph, and the conclusions to which it leads:

He is speaking of American books and works in this art, and says: "Notwithstanding what has been published on the subject, not a syllable has been written that had not been long ago advanced in English works; nor can we discover anything in the writings of American authors on Landscape Gardening, calculated to adapt the works of European writers to the wants of the numerous residences where this adaptation is much required."

A little back of this quotation, on the same page, the writer advances the idea that the style of improvement in the house should govern that of the grounds, and that this is the commonly admitted principle abroad. He then says, "to be guided here by such principles, shade of Evelyn, what a preposterous idea. America has not yet, we presume, produced the genius to strike out a style applicable to all, or, indeed, exclusively to any of the innumerable oddities that are scattered over the face of the country."

A careless reading of the page here referred to would certainly tend to give the reader a very wrong impression of the writer's meaning; he does not believe that any American has originated any style applicable to the numerous oddities, and yet he speaks of the English style being applicable to them exactly; of course he did not mean us to understand that English landscape Gardening was a collection of the numerous oddities, and yet it must be, since it is exactly suited to our own. However, these paragraphs are not quoted to note their inconsistencies, but rather for the

sake of the principles involved in them. It is very true, indeed, that in the highest principles of the art nothing has been originated here. Sir Uvedale Price, Gilpin, Repton, Loudon, and a few others, have covered the whole ground, and have left almost nothing to be said or discovered in the direction they went, but their writings are exceedingly voluminous and tedious to read. Price, Gilpin and Knight have set forth the principles, have raised and purified the theory, and Price particularly has given the theory and essence of Landscape Gardening so thorough a sifting as to leave little for his successors to do but to reiterate. The others referred to were either the practitioners of Price's theories (Repton), or the compilers of the practice of their day, and of that and of all preceding times (Loudon). Downing has very ably digested out of this mass all that is worth having to the general reader: he invented nothing, got up no new ideas or practices, but was a very able and skilful compiler; and inasmuch as he separated the most of the wheat from the chaff, and presented it in its winnowed form to the reader, he deserves quite as much credit as the original writer.

But had Downing lived longer,—had he had time to practice and develop many of his theories (borrowed and digested), he would doubtless have produced original matter worthy of the subject. As it is, he must ever stand at the head of the ranks, and, as the pioneer of a good cause, deserves more praise even than he already has.

But in reality, it is very questionable if Downing or Mr. Allen, of Buffalo, the editor of *Smith's Parks and Pleasure Grounds*, or any other persons who have re-published English works, have not made a very vital mistake, not in the good or bad compiling of English authors, but in having had anything to do with them at all.

The gentleman who has been quoted speaks of the English works as well adapted to the present American wants.

This position is the one towards which we have been tending: *it is not true that English works are adapted to American wants, but just the contrary.* Any farther than that general reading improves the mind, and that a knowledge of the various methods of performing similar work in different parts of the world, improves the workman, they are almost valueless.

One of them (Price) ought to be a text-book, but that one is never read or quoted as a practical guide. Price's *Picturesque* gives the careful student a very thorough idea of the principles of beauty—of the principles to guide his action; teaches him the difference between the beautiful and the picturesque; shows him how to appeal to the refined mind in landscapes: and more than all, going as it does to the root of the matter—analyzing the mind to its elements, and the principles of beauty to theirs—shows how they may mutually fit and benefit each other. This is all we want; let him who would become an artist of any kind, learn, not the handling, mechanism, or coloring of his teacher, but rather the spirit that guides him. It is never the rule of man's action so much as the mind within.

To this bad habit of copying results rather than principles, is to be attributed the bad architecture of the present day. Architects in designing buildings, assume some style, and then copy its

peculiar characteristics from an approved model, and manufacture a palace, costing millions, into a pine house costing \$3,500; or transfer a chapel or pinnacle of an abbey to the end of a New England meeting-house architecture, white pine church.

What they should do is, to understand the mind and spirit of the old designer, that they can see, with him, why he did each thing, and in their turn what they propose, not because he did it, but because the principle of guidance and action is the same to both.

But to return to ourselves. We ought to follow the same path. English Landscape Gardeners wished to make a home, and they endeavored to understand the home spirit of the age, and adapt their improvements to it, and their works are really a monument of it. In England it was natural, free and unartificial—therefore in their improvements they got as near the spirit as they might. In France it was the contrary. There was no home spirit; all was stiff, formal and artificial, and the improvements on the earth's surface were the same.

In England and France, all things are done, regardless of cost, so that the end, or desired effect is gained. A gentleman in England, thinks nothing of projecting improvements to cost 5, 10, 20, or \$50,000; no man here can conceive of giving over \$5,000. The evil of English reprints is very great; the scale is entirely different, the spirit is different, and above all, the ability to spend money is diametrically opposite, and when our would-be improvers read the English books, they fill their heads with fair pictures that they would fain make plain to all; they want all they read about, only that they are unwilling to spend the tithe of the money necessary to acquire it. No, we do not want English books, or men who make it one of their recommendations that they know how things are done abroad.

Such men, even if they do know one-half of what they pretend, are too dangerous to be entrusted with the reins, coming from a country where *thorough* is the word, to one where *cheap* is. They sink more money in cutting, filling and grading surfaces, that should have been left untouched, than the whole improvements ought to cost, and will spend more to drain one acre than we need, from difference of climate, to drain three. As I have said before, what we want in our country seats is a home; we want the home spirit plainly carried out. What do we care about the Duke of A., or Lord B.? They never lived in our houses, or spent our incomes; and we want improvements suited to *our* circumstances, not *theirs*.

Read Sir Uvedale Price, and as many more books as you wish; get fully imbued with a full appreciation of the beautiful, and then purchase land of good capacities. Having this start, make your improvements such as the true theory teaches they should be, whether the lines of country near you are geometric or regular, or whether they would suit the ideas of any Englishman the world has produced.

Let us learn to think that America is a pretty good place.

Lexington, September, 1854.

BLESS GOD FOR RAIN.

"Bless God for rain," the good man said,
And wiped away a grateful tear;
That we may have our daily bread,
He drops a shower upon us here.
Our Father, thou who dwelst in Heaven,
We thank thee for the pearly shower;
The blessed present thou hast given,
To man and beast, and bird and flower.

The dusty earth, with lips apart,
Looked up where rolled an orb of flame,
As though a prayer came from his heart,
For rain to come; and lo! it came.
The Indian corn with silken plume,
And flowers with tiny pitchers filled,
Send up their praise of sweet perfume,
For precious drops the clouds distilled.

The modest grass is fresh and green,
The brooklet swells its songs again;
Methinks an Angel wing is seen
In every cloud that brings us rain.
There is a rainbow in the sky,
Upon the arch where tempests trod;
God wrote it ere the world was dry,
It is the autograph of God.

Up where the heavy thunders rolled,
And clouds on fire were swept along,
The sun rides in a car of gold,
And soaring larks dissolved in song.

For the New England Farmer.

ANOTHER SPECIMEN OF FARMING.

MR. N. E. FARMER:—J. D.'s letter of inquiry to Mr. French may receive a further practical answer from the experience of a farmer, who has about average success, or a little less. I bought my farm of 100 acres in Sterling, Mass., about ten years ago, for a little more than \$2000—it is now worth \$2500. The stock and tools may be worth \$500, making the present investment about \$3000. I keep one man in the summer, and a little boy in haying. I can do but little work on the farm myself, say 30 or 40 half days in a summer. I pay in wages, exclusive of board, about \$150 a season. I generally keep 7 or 8 cows, mostly pretty good; but one or two heifers are farrow, so that the lot is no more than an average one. One yoke of oxen and a cheap horse serve for a team. I cut about 16 tons of hay (or 29 in a good season) from 25 acres of mowing, and this with my corn stover, straw, &c., keeps my stock.

From the above description, you can conceive that my profits cannot be immense—yet on summing them up, I see no reason to complain; and my inference is that farming must be good business when well conducted, since I am able to live by it with rather poor management.

Recollect the investment is about \$3000—the interest of which is \$180.

From my 7 cows I sell 700 lb. at 23 cts (in firkins).....	\$161
I can raise 200 bushels of corn, and from that, and the dairy, &c., can sell pigs and pork.....	150
I sell about \$40 worth of Apples.....	40
Potatoes.....	50
Beef.....	80
Poultry and eggs.....	75
Total.....	606
Wages, Taxes and Insurance.....	170
Profit.....	\$536

Besides this should be reckoned the support of my family from the farm, for we buy little except

clothing and groceries, and we live more comfortably than we could in a village for \$500, or in a city for \$1000. I put the wear of tools and buildings and my own labor, against the improvement of the farm, by trees and otherwise, which is not less than \$50 annually. So that I cannot make the profit of the farm (all expenses paid) less than \$336 annually, besides our living, which is doing pretty well for \$3000 investment, and poorly managed at that.

I have no doubt that a skilful man with a little extra capital, might make the farm pay at least double the above profit; but it will help a man to judge of what a good farmer can do, to know what is done by a poor or middling one.

In some points Mr. French's estimate differs from mine. For instance, we contrive to raise a couple of heifer calves a year on skim-milk, and though hay here is worth \$16 a ton, I find it the cheapest way of keeping up my stock of cows.—Also, notwithstanding the present high prices, I cannot afford to "sell off most of my hay and stock," for my butter, at present prices, makes it profitable to keep them. My farm is more than 50 miles from Boston by the railroad, and yet is near enough.

I would hint to J. D. if he chooses to experiment with guano, phosphate of lime, &c., the expediency of doing it in a small way at first. I have experimented with those articles and lost by it. Cattle and swine are the most reliable resources for manure.

Your correspondent D., of Groton, says that "butter packed in tubs as is usually done, does not keep well." We do not know how butter is usually packed in tubs in Groton, but if D. will come to Sterling, he will find folks who will make and pack butter in tubs, so that it shall not lose its sweetness or flavor for a twelvemonth. The secret is, work out *all* the butter-milk by successive workings, using no water—salt it with pure rock salt, an ounce to the lb., put it down solid, and then a decent dairy cellar will keep it good, if good in the beginning. If kept among vegetables, meat, cooked food, &c., it will spoil, of course.

Yours,

D. M.

REMARKS.—The above is a capital letter, and will do good among the cavillers and doubters. It will do good, too, to those who do not doubt—because it will confirm their own opinions. This is just what we want—brief and comprehensive statements of actual farm operations. Write us again, D. M., and give us the name in full, if you please.

A CHEAP BAROMETER.—A correspondent of the *Country Gentleman* urges that henceforth farmers, instead of watching the locusts and crickets for signs of weather, devote their meteorological observations exclusively to their wife's camphor bottles. He says:

"For some years I have been in the habit of watching the condition of the gum in my wife's camphor bottle, which stands in our bed-room, and when not disturbed, it makes a capital weather glass. It answers my purpose as well as a barometer that would cost me from \$25 to \$50. When there is to be a change of weather from fair to windy or wet, the thin flakes of the gum will

rise up, and sometimes when there was to be a great storm, I have seen them at the top. When they settle down clearly at the bottom, then we are sure of grand weather."

For the New England Farmer.

TANNING.

It may be thought that in writing upon the subject at the head of this communication, I am going out of the line which includes matters appropriate to your paper. Perhaps it is so. In fact, I have doubts myself about it. But there are two considerations upon which it might seem not unsuited to a paper designed for a farmer's reading. The substances used in tanning are vegetable, the products of the rural districts, if not of the farmer's care, and it may not be without value or interest to him to know their properties;—but, secondly, I think that those districts where cattle are most raised, and, of course, there is the greatest production of the raw hide for tanning, being usually, or often, remote from the tannerie, this business might, in some neighborhoods, be made a branch of the rural economy. But at any rate, its relation to the business of the farm, both in the article to be manufactured, and the material used in the process, seems to me sufficient to warrant its presence in a farming paper.

The oak, elm, sumac and hemlock are natives of this country, are abundant, and it may be worth consideration, if, in some localities, the materials for this purpose may not be profitably cultivated. The *Lavandula vera*, common lavender, contains tannin as well as the aromatic oil or sap which is so well known as a perfume. This plant is a native of a more sunny clime. Yet while it is a fact that in general, the secretions of plants are more active in the warmer latitudes, (as for instance the rose yields less of the fragrant oil called Otto of Roses in Northern than in more Southern climates) it is also known that the Lavender is more fragrant in the North than in the South. Whether the tanning property of this plant is increased, as well as its fragrance, by cultivation in a higher latitude, I am not informed. It is the aroma that is generally diminished by Northern removal, while other properties are increased:—and it would be most accordant with observation, to find the tanning property of this plant increase in our climate.

The astringent principle or element, by which the hide is manufactured into leather, is generally obtained, in this country, from oak. Most kinds of oaks possess it in a greater or less degree. The hemlock and sumac are also extensively used in this country. Sheep-skins especially, tanned by sumac, command a higher price in market than those tanned by other matters. In England the willow is used. The elm also contains a sufficiency of this element to make it available for the purpose of tanning. There are some trees of the warmer latitudes, which contain more of this principle than the best of our oaks. The mangrove, a West India tree, makes very superior leather, and performs the tanning better in six weeks, it is said, than oak bark in ten. The *Acacia Catechu*, which yields the *Terra Japonica*, has a larger proportion of this element than oak. Some other species of *Acacia* are also good for this purpose. Whether any of those native

this country are valuable for this purpose, I cannot say. The change produced on the hide by the process of tanning, by which it is made tough and durable, is made by the conversion of the gelatin or glue, by steeping the hide in a solution of the bark. The gelatin is, by this process, made capable of resisting decay, and imparts toughness, strength and durability to the hide.

I have hinted that this business might be made a branch of rural economy. With your leave, I will say a few words on this subject, desiring it to be kept in mind that my remarks are intended, in particular for remote places, which are rather pastoral, and not for the more densely populated farming districts. In those interior rural districts, where the raising of cattle is extensively prosecuted, and the animals are slaughtered at home;—under these circumstances, the raw material and the means of converting it into leather are both on the farm. Here the tanning material would be of no value, while at the tanneries a high price is paid for it. No machinery is required, and all the articles being at hand, it would seem to me, that in each township or neighborhood, it would be easy and little expensive to have a few pits where each one might take his hides to be tanned, as he sends his pork to a neighbor's smoke-house. The transportation of the hides and of the bark to a distance to be tanned, adds a considerable item to the cost of the leather, while the farmer has both at his hand. It would be a great improvement of the condition of the farmer, if he could convert his articles of product into the state necessary for their economical use. Where expensive machinery is not required, it would seem this might be done. A portable mill has lately been invented, designed to make the farmer his own miller. If he could also convert his hides into the state for use, he would still further increase in independence.

It is always desirable for a farmer to manufacture as much as, and whatever can be done; and this includes such articles generally as are manufactured without machinery. Formerly in all farmers' families, most of the wear was made by the women of the household. This has been discontinued, because by the introduction of machinery the price of clothing has become less. There is no such reason against tanning. But the cause why this is not pursued as a branch of rural economy is, that it would come upon the man, not upon the female part of the household; and the man is so apt to think that the tilling and the care of the stock is enough for him. But I am inclined to think that if one farmer in each neighborhood, situated as I have mentioned, would tan the hides for himself and neighbors, it might be another step of the farmer towards independence.

Essex, 1854.

J. W. A. B.

AGRICULTURE IN NOVA-SCOTIA.—Through the attention of Messrs. BESONNETT & BROWN, of Halifax, we are favored with a pamphlet of 148 pages, being "Practical Hints to the Farmers of Nova-Scotia on the Management and Improvement of Live Stock, and on General Husbandry: By J. W. DAWSON, author of Scientific Contributions towards the Improvement of Agriculture in Nova-Scotia." The work is mostly a compilation of

valuable papers from the writings of Youatt, Johnston, Peters, Stephens, &c., and will be more valuable, perhaps, to the farmers of the Province, than any collection of their own operations would be.

ACKNOWLEDGMENTS.

At this season we are particularly remembered by our friends, and receive from them specimens of the fine fruits which have been produced by their industry and skill. In order to look abroad among the farmers, and in attending the gatherings of the farmers at their annual festivals, we are necessarily away from home considerably, and cannot give their favors quite so much attention as we could desire.

The pears from Ashfield, sent in by Wm. BASSETT, Esq., were received in good order. It is a pretty one and of fair quality, but we have better varieties of the same season, such as the Rostiezer, Tyson, Brandywine, and others. Still, if worthy in other characteristics than those of the fruit alone, it may be advisable to cultivate it. The great objection to fruits of this season, is that the Bartlett takes the market before all others, on account of its size and usual good qualities.

One of the apples sent in by J. R., Feltonville, will be noticed hereafter. The other, the Red Sweeting, is not among the best sweet apples in point of texture and flavor; but as it has great beauty, it would always sell well in any market, and therefore is worthy of cultivation.

The corn sent by G. S. R., Feltonville, being a mixture of the Tuscarora with the 14 rowed sweet corn, is not, we think, as tender, juicy, and free from hulls, as some of the kinds now common among us. The best corn for boiling, in our opinion, is the black corn; when unripe it is whitish, but turns as it ripens and becomes black.

It is not quite so early as some of the sweet white corn, but is so tender and juicy as almost to melt upon the tongue. It shrivels like sweet corn, when drying.

FARMERS IN THE UNITED STATES.—The census returns for 1850, give the following number of farmers in the States and Territories:—

Maine.....	7,706	New Hampshire.....	47,408
Vermont.....	48,312	Massachusetts.....	66,082
Rhode Island.....	8,399	Connecticut.....	31,798
New York.....	311,591	New Jersey.....	82,302
Pennsylvania.....	206,247	Delaware.....	7,248
Maryland.....	27,040	Dist. of Columbia.....	248
Virginia.....	106,807	North Carolina.....	81,898
South Carolina.....	32,863	Georgia.....	81,284
Florida.....	4,750	Alabama.....	98,610
Mississippi.....	44,833	Louisiana.....	11,687
Texas.....	25,084	Arkansas.....	23,838
Tennessee.....	118,941	Kentucky.....	114,718
Ohio.....	269,680	Michigan.....	66,708
Indiana.....	163,180	Illinois.....	140,894
Missouri.....	65,161	Iowa.....	82,716
Wisconsin.....	40,866	California.....	1,486
Minnesota.....	340	New Mexico.....	7,888
Oregon.....	1,768	Utah.....	1,870
Total in 36 States and Territories.....		2,543,948	

EXTRACTS AND REPLIES.

QUERIES ABOUT HOPS.

MR. BROWN:—For some months past, I have been thinking of engaging in the cultivation of hops on a small scale, but I hardly know how to begin. Will you, or some of your correspondents, please inform me through the *Farmer*, the whole process of the propagation and cultivation of hops, also with regard to soil and manure to be used. Especially inform me whether they are raised from the root or the seed, and if from the root, the best time for transplanting. Thus doing, you will much oblige,
A SUBSCRIBER.

Kennebunk, Me., 1854.

REMARKS.—DR. BROWN, of Wilmington, or some gentleman in that land of hops, we have no doubt will reply to these queries.

BRITTLE WHEAT STEMS—THE LOCUST TREE.

MR. BROWN:—I wish to inquire through the columns of your valuable paper, what is the cause of wheat straw being brittle? We have a nice piece of wheat which is very heavy headed and of a good growth of straw, but it is very brittle. It will not bear a half day's sun without being so brittle that it cannot be bound, unless the dew is on. The land is a mellow loam, with roundish stone in it. It was broken up 4 years ago, sowed to oats in the spring, and bore a good crop; the next year corn, with a fair crop, it being manured in the hill, also some spread on and plowed in. The next crop was corn, with the addition of more manure, and brought a heavy crop, and this year wheat. The land is a gentle slope to the south, with wood-land on the west, a part of the way.

What kind of tree is the locust, and to what uses is its wood applied? I never saw any of them, and you will greatly oblige me, by giving me information about it. If it is of any use as a forest tree, I should be glad to know it, as wood is getting scarce here.
L. HOWARD.

Ludlow, Vt., Aug. 18, 1854.

REMARKS.—The locust tree is deciduous, a native here, and valued highly for its timber—particularly for posts and for ship-building. They are readily propagated by seeds, or by cuttings of the roots, and will grow in almost any soil that is not too wet. They grow rapidly, and are highly ornamental as well as useful tree.

In this country there are three popular varieties, distinguished by the color of the heart-wood; viz., the red locust, when the heart-wood is red, and which is esteemed by far the most beautiful and durable timber; the green locust, which is the most common, which has a greenish yellow heart, and is held next in esteem to the red; and the white locust, which has a white heart, and is considered the least valuable of all. In the western States there is another variety called the black locust. These trees sometimes attain the height of 70 or 80 feet.

WILLIAM COBBETT, that eccentric genius, when he engaged in farming and gardening on Long

Island, N. Y., about the year 1817, said he believed nothing in the timber way could be so great a benefit as the general cultivation of this tree. He carried seeds back to England with him, sowed them, and says he sold more than a million of the trees. The seed is ripe in October, and if not sown immediately, should be kept in the pods till the following spring. It is well to steep the seeds in cold water before sowing them.

The other questions we are not able to answer.

SHELL-MARL.

MR. BROWN:—You will confer a favor upon many of your readers by answering the following questions, through the columns of the *New England Farmer*.

What is the value of shell-marl compared with other fertilizers?

To what kind of soil is it best adapted?

Is it good on any or every kind of soil?

What kind of crop is it best suited for?

How much to the acre for a good crop?

T. B. L.

Rockingham, Vt., Aug. 28, 1854.

REMARKS.—If you have found a deposit of good marl, strongly impregnated with calcareous substances, you will be able to bring your lands into a high state of fertility. We have seen lands exhausted with tobacco and wheat crops, in Maryland, brought into the most luxuriant clover at once by the use of marl. The land itself being a clay loam. Not having had any particular personal knowledge of the effects of marl in our own agricultural operations, we prefer to give you the opinion of another on the subject, and introduce some extracts from the address of Lord SOMERSET, President of the Board of Agriculture, in England, some fifty or sixty years ago. He says;

Marl is a substance, containing calcareous earth, found in the bowels of the earth, in different situations and at various depths.

Clay Marl.—Clay marl is so called from its resemblance to clay, of which it contains a considerable quantity in its composition. It is of many different colors; but all of these agree in one particular point.

Stone Marl.—Stone marl is so called on account of hardness; and differs from the former in being less easily soluble in water.

Slate Marl.—Slate marl is found in thin laminæ, or layers, like slates, and is of a consistence harder than clay, and softer than stone marl. This substance is also of difficult solution in water.

Shell Marl.—Shell marl is distinguished from every other substance of that nature, both by the shells it contains, and the cohesion of its parts, as well as its specific gravity, being less than either of them. It is most frequently met with in situations where the ground has formerly been covered either by lakes or pools of stagnant water. When the shells are in a fresh state, and covered with the enamel on the outside, shell marl is of very little value; but when they are in a decayed state, it is by far the richest and most efficacious of any that we are acquainted with.

The benefit of all marl in agriculture, is, in a

great measure, owing to the quantity of calcareous earth they contain; and according as they possess more or less of it, they are more or less valuable. The principal distinguishing mark of good marl is its effervescing readily with the acids. This circumstance, while it proves the existence of the calcareous earth, may be made use of to determine the quantity of it; which is a matter of consequence for farmers to ascertain.

In all cases, therefore, where lime and marl can be obtained with equal ease, a preference should be given to lime for deep soils and coarse meadows; and to marl for high, thin, gravelly lands, especially if much wild sorrel grow upon them. There is scarcely a shape, in which marl can be used with such propriety as upon these high lands when they are in grass. The experience of farmers, in those parts where marl is much used, abundantly confirms the truth of this doctrine, and perhaps, by the use of marl in this way, with the assistance of top-dressings of compost afterwards, all poor, thin gravels, and even sand, may be rendered more valuable than by any other mode of management.

But though we have thus decidedly given the preference to the use of marl upon light soils, we by no means wish it to be understood, that it might not be applied upon any other; on the contrary, we think that upon strong clays, if a sufficient quantity is put on, it will be highly beneficial. Every description of marl, however, will not answer for this purpose? Clay and slate-marl, upon stiff lands, will increase their cohesion, and in place of serving, will injure them; but if shell or stone-marl is used, the soil will be rendered open, and by its cohesion being broken, the water will find a readier passage through it; of course the land will be rendered deeper; the advantage of which every farmer knows.

GIVING CREDIT.

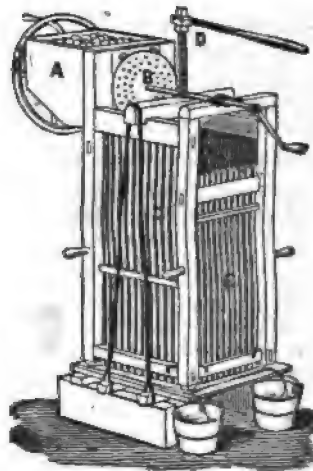
In speaking of turnips, in his article on "Fodder Crops, No. 3," the Editor of the *Journal of Agriculture* illustrates his point by the use of a paragraph which he credits to the *Monitor*, published at Bockville, Canada West. By referring to the *Monthly Farmer*, for June, p. 284, he will find an editorial article with the title—"Importance of Roots," and in that article the paragraph in question; it was a brief statement of an experiment with our cows in the winter of 1852-3.

We find no fault with the *Journal*, for its editor is scrupulously careful to make the handsome acknowledgment for what he uses; but to show the blundering work occasioned by a neglect to give the proper credits in the first place.

THE YEW TREE.—Mrs. Stowe, in her new work, entitled "Sunny Memories of Foreign Lands," gives the following description of the yew tree, of which we have read so much in English Literature:

"Here in England, I think, they have vegetable creations made on purpose to go with old, dusky buildings; and this yew tree is one of them. It has altogether a most goblin-like, bewitched air, with its dusky black leaves and rag-

ged branches, throwing themselves straight out with odd twists and angular lines, and might put one in mind of an old raven with some of his feathers pulled out, or a black cat with her hair stroked the wrong way, or any other strange, uncanny thing. Besides this they live almost forever; for when they have grown so old that any respectable tree ought to be thinking of dying, they only take another twist and so live on another hundred years. I saw some in England seven hundred years old, and they had grown queerer every century."



CHAPIN'S PORTABLE CIDER MILL.

The old cider mills of the country which were once considered as indispensable adjuncts to the farm-house, have become sadly dilapidated and out of joint. Cider-orchards as they were called, have also become unfashionable since cider-drinking has given way to tea and coffee, and a better sort of apples will bring from \$10 to \$20 per barrel in European markets;—so that now, one sometimes finds it difficult to get a jug of liquid for mince pies or to replenish the nearly exhausted vinegar cask.

Therefore, to enable those who have a few apples to grind and press, to do the work with facility, we give above a cut which represents a *Portable Cider Mill*.

The manufacturers say it is operated by two men, and is capable of making five barrels of cider per day, one barrel at a pressing. It is readily moved from place to place by two men, and is very convenient in neighborhoods.

The utility of this mill has been certified to by many reliable men.

It is made of a size to be operated by a horse; placed on four wheels and drawn by one horse from place to place, and is capable of making from 12 to 15 barrels of cider per day, with the work of only two men.

Either size is taken into the orchard, and saves the transportation of apples to distant mills.

For the New England Farmer.

LIGHTNING RODS.

MESSES. EDITORS:—In your paper of the 26th of Aug., a writer styling himself "Farmer," asks, if lightning rods are not humbugs?

There are various kinds of lightning rods, and different modes of erecting them, and "Farmer" asks which is the best? Why, truly, mine is the best; so each one says. One relies upon its top, another, on its fixtures, another, on something else, for sure protection. But the cause of failure lies not usually in its top, nor in its fixtures, but at the foot of the rod. Here is the place of its failure. It does not enter the ground in the best place, or it has not been well-imbedded in the earth. It has been my practice for many years to examine, thoroughly, those rods which the lightning has left, to ascertain what, and where, the defect or difficulty was, and I have invariably found it to be *at the foot of the rod.*

Had Franklin's directions been followed, there doubtless would have been no failure. He directed to have the foot of the rod enter the ground in the wettest place about the building. The well was a good place, he said, if convenient, or sink-hole, or put it down so deep as to have it always moist; and at the same time, he would have old iron, or charcoal, which is better, placed about the foot of the rod, so as to form a larger fountain of electricity at the foot of the rod than there was in any other place about the building, for he said lightning would not leave a large fountain of electricity for a small one. Here is sound philosophy and good common sense. And when his directions have been followed, I have not found a failure.

Some place much reliance on glass insulators, of which there are a number of different patents. But I have found none but what have failed to protect. And why should they not sometimes fail? Electricity will run on glass when wet as well as on anything else. When it lightens, it usually rains, or at least, the atmosphere is so humid that the glass is moist, affording no obstacle to the lightning passing over it. In theory, they seem very scientific, but in practice, they are real scientific humbugs. I might point to lightning rods with glass insulators, which have fluid to protect. But as an illustration familiar to all, look at the telegraph. Its wires run through glass insulators, and yet every year, more or less frequently, the lightning comes down upon the wires, runs over the glass, demolishing the post on which the glass sits. I have examined hundreds and perhaps thousands of places where the lightning has actually struck, and have always found it coming down in connection with the natural fountains of electricity in the earth. These fountains are the oars and veins of water in the earth. Find the natural fountains of electricity about the building, and place the foot of the rod over the largest one, and then you form a railroad for the lightning to run safely by the building to the place which it is seeking.

Yours truly,

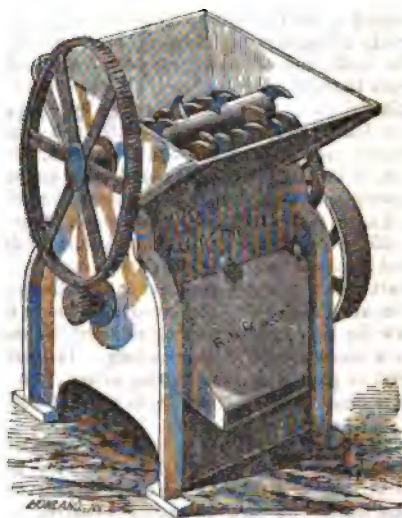
Mendon, Sept. 6, 1854.

A. H. REED.

THE GERMANS.—These Germans seem an odd race, a mixture of clay and spirit—what with their beer drinking and smoking, and their slow,

stolid ways, you would think them perfectly earthly; but an ethereal fire is all the while working in them, and bursting out in most unexpected little jets of poetry and sentiment, like blossoms on a cactus.

Nowhere in Europe is railway travelling so entirely convenient as in Germany, particularly in Prussia. All is systematic and orderly; no hurrying or shoving, or disagreeable fuss at stations. The second class cars are, in most points, as good as the first class in England; the conductors are dignified and gentlemanly; you roll on at a most agreeable pace from one handsome station-house to another, finding yourself disposed to be pleased with everything. There is but one drawback to all this, and that is the smoking.—*Mrs. Stowe.*



NICHOLS' PATENT CORN AND COB CRUSHER AND PULVERIZER.

This is a most valuable machine for cracking corn and cobs previous to passing through mill-stones; for crushing and pulverizing corn, and cobs, and all other kinds of grain suitably for provender; and for cracking corn alone, making it suitable for hominy, and the use of stables. It is adapted to horse, steam, or water power; will crush a great amount of grain, and remain in active use a long time without needing repairs; is easily and quickly regulated to crush or pulverize grain to any degree of fineness, from coarse to that which is very fine; will crush oats and all other grain of like dimensions,—the necessity of which is yearly becoming more apparent, as kernels of grain must be denuded of their coating, or pellicle, previous to entering the stomach of any animal whatever in order to be digested and do the animal the greatest good; for even Nature's powerful solvent, the gastric juice of the animal's stomach, is not equal to the decomposition of the pellicle covering the kernel of oats.

For the New England Farmer.

CHAPTER ON HUSBANDRY—No. 3.

MESSES. EDITORS:—With your permission I resume my chapter No. 3; should any objectionable matter appear draw your pen across it. I continue with article

21. Keep clean work around your field-walls; brambles, briars and bushes denote a slovenly farmer, and are neither useful or ornamental—bad for hay cutters.

22. Plow from the walls and carry the soil into the barn-yard or cellar; this drift of vegetable deposit makes excellent manure, but suffered to lie, it proves a rich nursery for bushes.

23. Surround your mowing fields with apple-trees; this plan helps out the orcharding, and avoids shading the land and crops; if your neighbor adjoins, (friendly or unfriendly) place your trees 8 to 10 feet from the wall; this gives the treble advantage of plowing between them and the wall, and of saving on your own land all the fruit that falls, and above all the wrath of the spiteful man, who seeks revenge by chopping off the limbs perpendicularly with the line wall, should they happen to overlie his field. Such depraved instances have occurred, even among men, "professing and calling themselves Christians."

24. Apple-trees thrive best near a stone wall.

25. Never plow land when it is wet; it cakes and hardens and does not easily mellow again; wait if it is a wet spring, (even like the past) and you are the gainer; soil cannot be made too mellow for the tender reaching roots of the vegetable, to whatever class it may belong. It would pay well to plow twice for Spring crops; yet I know how anxious the farmer is to finish plowing, but "Haste often makes waste."

26. Never cultivate a two-acre corn-field for a product of 60 to 75 bushels. The same quantity of manure will give the same result on one acre, and nearly one-half the labor is saved; no other doctrine will stand law—predicated on the reliable principle that the great merit is in the manure, as we all admit; in times of drought it stands better; at harvest time—it is a cornfield.

27. Never manure corn in the hill for the reason that its roots immediately run away from it and lose its nourishment; spread, and the roots will journey through and get the benefit; they are many and long, and seek sustenance on their way. In the hill it forces and looks more vigorous at first—but spread even the little which you design for the hill and test fairly the experiment; always plow in manure as soon as spread, to save the gases in the soil.

28. Top dressing is much in practice, even by good farmers; in my humble judgment it is of doubtful utility, and I will give my reasons. In the first place, the ground is required to be wet when it is spread, or rain is necessary to soak it into the surface; we will suppose all this to be accomplished and the season's crop is increased, perhaps, nearly sufficient to pay the expense of the dressing, yet one season exhausts all its value; suppose it to have been spread, and it turns out a dry season; then dry sand is of about as much value as top-dressing. When grass-land needs to be top-dressed, and it is done, it needs the plow most to follow and bury it; then, and in after-time you get its fertilizing effects. This is the month to

turn over old mowing land and sow down to grass, and if well manured, a good crop is obtained the next year and no loss of a season in the grass crop.

29. Beverage, or farm drinks, are not out of place here, although changed somewhat from former times. When a boy, I was allowed two swallows from the old jug, against four swallows with the men. But these were emphatically, the days of "rum and molasses." Every farm was then a well organized nursery for drunkenness; rum, molasses and wormwood, was the established worm vermifuge for all the children. Now, men believe that rum riots in the blood—enrages the brain—deadens the appetite for food—enervates and prostrates the system—embroils the peace of good neighborhoods—brings wreck, ruin and the sheriff to a once happy home—and while the outer man works in the field and cringes under a blistering sun—he inwardly scalds with an unnatural fire, turned into his body at every round or two of the mowing-field, and becomes a well-prepared subject for sun-stroke, a broken neck, or a crushed body from his loaded team. Molasses, ginger and water, cold water, simple beer, are good and safe substitutes for rum and leave no insanity upon the brain—and while one hundred die from liquor, but one man dies from drinking too much cold water.* It is to be hoped this paragraph is not an innovation upon your agricultural columns—not offered in a spirit of rebuke—but to show what was, and ask what is.

Yours truly, H. P.

Brooklyn, N. Y., Sept. 8, 1854.

* The papers publish all cold water deaths—quite rare; how would stand the other side?

SOWING YELLOW LOCUST SEED.

As timber for posts is becoming scarce, it may be well to sow a few quarts of locust seed, to raise plants for the formation of a grove. It will not be time for some weeks to sow the seed, and we anticipate it, to enable our readers to make the necessary preparations. The ground to be selected should be a deep, well-exposed loam; it should be manured ploughed deep, harrowed, and the seed sown thinly, in drills two inches deep, four feet apart. Before being sown, the seed should be soaked in hot water for twenty-four hours; all the seeds which float to be cast aside. The plants, when they come up, must be kept clean. At one and two years old the young trees will be fit to be transplanted. They should then be set out in a deep, warm soil, which has been well manured, ploughed, and harrowed, in rows twelve feet apart, ten feet asunder in the row, which will give to each acre 363 trees. In twelve years they will be large enough for posts—and we all know they make durable ones. A grove once set will, after being cut down, renew itself, and furnish a new supply of post-timber every twelve or fifteen years.

We have stated that these trees might be cut over every twelve or fifteen years for purposes of fencing, and we will add, that such of those as remained from twenty to twenty five years, if fair, vigorously grown, healthy trees, would be worth three dollars apiece for ship building—would at all times command ready sale to shipwrights, as also with railroad companies, for use on the tracks. What an acre of land would bring

for such purposes, if sold, can easily be calculated. As a matter of convenience and profit, it is with the owners of land to determine whether their interest would be subserved by setting out a grove of a few acres in extent; the number, of course, to be determined by the size of their respective farms.—*Am. Farmer.*

HINTS TO YOUNG MEN.

Give a young man a taste for reading, and in that single disposition you have furnished him with a great safeguard. He has found at home that which others have to seek abroad, namely, pleasurable excitement. He has learned to think, even when his book is no longer in his hand; and it is for want of thinking that youth go to ruin.

Redeem time for reading.—Perhaps you think this impossible; but the busiest life has some pauses.

When I see the large amount of time spent by some over the lowest sort of newspapers, I am convinced that the most industrious young man might obtain a few minutes for study; and it is astonishing how much can be learned in a few minutes a day. What cannot be done to-day, may be accomplished to-morrow. It is as true of time as of money—"Take care of the pence, and the pounds will take care of themselves." Or as Young more poetically expresses it,—"Sands make the mountain, moments the year."

Do a little every day.—Constant dropping wears away rock. When Apelles, the famous Greek painter, was asked how he had been able to accomplish so much for art, he replied: "By the observance of one rule—*No day without a line.*"

Be not discouraged by difficulties.—These are chiefly at the start. The French proverb says truly: "It is only the first step that costs."—The tree of knowledge has a rough trunk, but delicious fruit. You must crack the shell, to come at the kernel. Be assured that a little resolution here will insure success.

Begin at the beginning.—Do not smile: the rule is important, and broken every day, in every employment. In unravelling a tangled thread, who does not know that everything depends on getting hold of the end! Just so it is in learning.

Never be ashamed to learn.—And in conformity to this, never be ashamed to confess your ignorance, in the presence of those who have more information than yourself. Many of us would be wiser, if it had not been for the conceit of being wise enough already.

Value the smallest fragments of knowledge.—In manufactories of gold, I have observed that they save the very sweepings of the floors, and put network at the windows: the little morsels and fine dust of the precious metals, thus saved in this city, amount to hundreds of dollars in a year.

Lay aside a little money to buy books.—There are certain books which every man should possess as his own: and every reading man desires by degrees to gather a little library for his wife and children. A trifling sum, set aside each month, and redeemed from amusements or luxuries, will soon give an account of itself on your shelves.

Employ your p.n.—This counsel, though less frequently given than others, is nevertheless far from being superfluous. There is a marvellous

power in writing down what we know. It fixes the thoughts; reveals our ignorance; methodises our knowledge; aids our memory; and insures command of language. "Men acquire more knowledge," says Bishop Jewell, "by a frequent exercising of their pens, than by the reading of many books."

All men of high attainments agree in saying that the more valuable part of every one's education is that which he gives himself. In this there is high encouragement to go on and prosper. The mental accomplishment which is fully within your reach will double your capacity for action. When Aristippus was asked, wherein a learned and unlearned man differed, he replied: "Cast them both, naked, on a foreign shore, and you will see." Education will do for you, what sculpture does for the marble. Hence the famous saying of Socrates:—"I marvel that people should be willing to give so much for turning a stone into a man, and so little to prevent a man's turning into a stone."—*Tracts for the Times.*

THE FITCHBURG CATTLE SHOW.

The annual show and plowing match of the Worcester North Agricultural Society took place at Fitchburg yesterday. After the usual plowing match and the trial of working oxen, a procession was formed under the direction of Col. Ivers Phillips, the chief marshal, which proceeded to the Unitarian Church. Here an able address was delivered by Gov. Washburn. The church was crowded. At its conclusion, the procession reformed and proceeded to the Fitchburg Hotel, where the society and its friends dined. The president of the society, Hon. Moses Wood, presided, and introduced the speaking by a clear and excellent practical address. He spoke of the rugged character of North Worcester, the need there was of such efforts as this society are making, and the value of the encouragement given by the state to this and kindred societies. He was followed by Mr. Flint, the secretary of the board of agriculture, Governor Washburn, Hon. Nathaniel Wood, and Mr. Brooks, in eloquent speeches.—The several committees made their reports at the Town Hall, at 4 1-2 o'clock in the afternoon.

This exhibition is pronounced the most successful of this society. The show of fruit was excellent, as was that of mechanical and manufactured articles. These were exhibited in the hall of the new town house. The ladies, as usual, patriotically contributed in this work; and specimens of taste and skill were seen not only from the parlor, but the kitchen; but the premiums on bread were only awarded "to ladies less than twenty years of age." The day was beautiful, and thousands of the citizens of North Worcester thronged the streets of Fitchburg.—*Boston Post.*

A BIRD SEEKING LODGINGS.—During the cold storm of Monday night, at a late hour, a small bird knocked for admittance at a window of a hotel which was illuminated by a light within. The occupant, supposing the noise to be the pattering of hail against the pane, gave it no attention. Presently the "rapping" commenced again, when the window was opened and in flew the little creature, apparently delighted to get into comfortable quarters, and confident of shelter and safety.

After courting about the room as if to bathe itself in the warm air, it quietly selected its place, and depositing its head under its wing, went to sleep. It is difficult to say which of the occupants of the same apartment felt better satisfied with themselves, or slept more peacefully through the night. As the day broke, out broke the bird's grateful acknowledgments to the Protector of all, in a song, which for so tiny a body and a stranger, was remarkably loud and ecstatic. It was nearly famished, and ate and drank with an enviously appetite for its breakfast. Being now able to take care of itself, and not choosing to be dependent longer on charity, the little fellow insisted on being released; the window was opened, and out he went, to share his fortune with his tribe, thanking his friend as well as he could for his hospitality.—*Alb. Argus.*

LEVEE OF THE AMERICAN POMOLOGICAL SOCIETY.

We were prevented by a pressure of duties from attending this banquet, which was as intellectual and harmonious, as the fruits and their juices were rich and rare.

LEVEE OF THE AMERICAN POMOLOGICAL SOCIETY.—By invitation of the Hon. Marshall P. Wilder, President of the American Pomological Society, now in session in this city, the delegates in attendance were invited to a levee at the Revere House. Many prominent citizens and official personages were also present. After an hour of social intercourse, the company marched into the dining hall, where a splendid repast was spread. The tables were loaded with the most tempting fruit, and ornamented with the magnificent flowers; from the chandeliers clusters of superb grapes were suspended, and added a crowning decoration to the festival.

Mr. Wilder welcomed the strangers from distant States to Boston, and expressed his gratification at meeting in a social manner the members of the Pomological Society. He said it was not his purpose to call upon his friends for formal speeches, nor to summon "spirits from the vasty deep"—nor to invoke the presence of the "rapping spirits"—nor should he, in these days of temperance and of the Maine law, before the Governor and Mayor, offer ardent spirits; but it was his purpose to place before the guests a specimen of American fruit—the berry and the juice. He expressed his indebtedness to generous and thoughtful friends in Ohio, who had forwarded some rich specimens of the juice of the grape for the purpose of having it tested by the members of the Pomological Society; he proposed, therefore, that the company resolve itself into a "Tasting Committee of the Whole" upon the Ohio vintage, and he would propose—

The Vintners of Ohio—By never allowing the juice of the grape to be distilled or adulterated, may they prove to the true promoters of temperance that it can produce joy without sorrow, and health without detriment to the public weal.

This sentiment was followed with a general report from bottles of "Longworth's Sparkling Catawba," "Werks's Isabella Wine," and American Hock. Short and appropriate addresses were made by Gov. Washburn, Mayor Smith, Hon. Mr.

Benson of Maine, Ex-Mayor Seaver, Mr. Prince of Long Island, Mr. Barry of New York, Hon. Samuel Walker of Roxbury, W. S. King, Esq., Seth Sprague of Duxbury, Charles L. Flint, Esq., Secretary of the Massachusetts Board of Agriculture, Hon. E. L. Keyes of Dedham, Hon. J. W. Proctor, and others. The Levee passed off in the happiest manner, and was in the highest degree creditable to the taste and liberality of Mr. Wilder.

We also copy below a vote of thanks of the Pomological Society, to its President. Col. WILDER, —and he justly merits every word said. No man has given his life more earnestly to a cause than he, and every lover of fruit and flowers, and all the sweet influences they exert upon us, will do something to sustain and promote the cause in which he is engaged.

Resolved, That the thanks of the society are most cordially presented to the President, Hon. Marshall P. Wilder, for the prompt, able, and impartial manner in which he has presided over its deliberations; and we hereby assure him that the members will long cherish a lively recollection of the pleasure enjoyed at his bountiful and brilliant festive entertainment with which he complimented the society.

Mr. Lines of Connecticut was unwilling that this resolution should pass with a single vote. It was due to the gentleman who has presided over the discussions of the society with so much dignity and ability. He considered that the position in pomology which the President had reached, conferred more honor upon him than the Presidency of the United States could do. A gentleman who confers such immense benefits upon the whole country,—he might say the world,—as Hon. Mr. Wilder does, is entitled to distinguished honors. He hoped this resolution, too, would be passed by a standing vote.

The resolution was unanimously adopted.

President Wilder made the following happy response to the last resolution:—

Gentlemen,—The resolution which you have just adopted awakens in me feelings of gratitude and affection. The interest which I have ever felt in the prosperity of this Association, has induced me to accept of your suffrages and to occupy the chair for another term.

I beg to tender you my grateful acknowledgments for your co-operation and support, and to assure you of my unabated interest in the objects of the Society and in your personal welfare. May you go on, prospering and to prosper, and when we have done cultivating the fruits of earth, may we have the unspeakable felicity to meet in celestial fields, and gather ambrosial fruits from the Tree of Life.

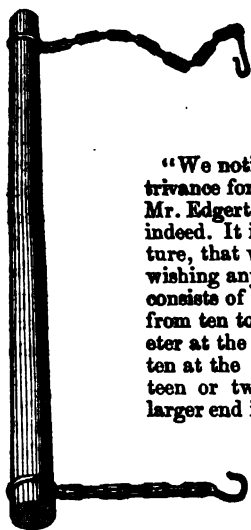
There being no more business before the convention, it adjourned at a quarter past two o'clock, to meet in Rochester, N. Y., in September, 1856.

☞ In Chili it does not rain because the trade winds, which are necessary to agitate the watery and the atmospheric oceans and keep them pure, sweep the clouds past South America, and drive some of them up against the Andes, where they are condensed by almost continual thunder showers and run down across the level country in co-

pious streams. Evaporation in this warm country is very brisk, and the vapor rising from the broad Pacific, being blown on the land by trade winds, falls in copious showers of dew, making Chili one of the most fruitful countries on the Pacific coast.

SIMPLE AND CHEAP STUMP-PULLER.

Now for a tug at the old stumps. Here is a contrivance so simple that any farmer may make one before breakfast, and the cost is so trifling, that if it does not operate to his entire satisfaction, he will have no regrets at having given it a fair trial. We find it sketched in the *Wisconsin and Iowa Farmer*.



"We noticed a very simple contrivance for pulling stumps, which Mr. Edgerton says works very well indeed. It is so simple in its structure, that we commend it to those wishing anything of the kind. It consists of a log of strong timber, from ten to twelve inches in diameter at the large end, and eight to ten at the smaller, and about sixteen or twenty feet long. To the larger end is attached a very heavy chain, about three feet long, with a very large and strong hook at the free end, while at the other there is a ring sufficiently large to slip

over the larger end of the log or lever. To the small end of the lever a yoke of cattle is hitched. The manner of using it is as simple as the machine, and acts on the principle of some tooth-hooks of the dentist. The large hook is caught hold of some of the stronger roots, and the cattle are then driven round the stump so as to wind up the short heavy chain, and then continue on in the even tenor of their way, till the stump gives itself and surrenders its position. Thus they are removed, easily and rapidly. A rough sketch of this 'cork screw' as it was technically called, we here give."

APPLES FOR COWS.

A good neighbor of ours tells us that he is feeding his cows in part on apples, and he things advantageously. It is his opinion, that apples, whether sweet or sour, in these times of scarcity of feed, are worth far more for cows, than to make into cider. He says they may be feed to cows in larger quantities, now that the grass is dry, and especially if a little hay from the barn be given, than if the pastures were as green as usual; that if you feed them in any quantity below the scouring point, they will increase the quantity without deteriorating the quality of the milk; but that if you go beyond that point, the milk will be diminished; and that the feeder should observe the effect, and stop feeding within the limit, if he would derive the greatest benefit from his apples as a feed for milch cows. Others have said that

if cows are admitted to falling apples by degrees, they will soon learn to eat enough of them without eating too many. We know not how all this is, but our neighbor is a man of good sense and careful observation, and we are inclined to believe that he is right in thinking that the quantity should be limited; and we have no doubt that apples if fed in the best manner, are valuable for any kind of horned cattle, as we believe they are also for swine, and, for ought we know, for any kind of animals.—*Conn. Valley Farmer*.

For the New England Farmer.

STRICTURES ON PROF. MAPES' CULTURE OF CARROTS.

In the monthly *Farmer* for September, p. 401, are some severe strictures, on that mode of culture that drops radish or other quick vegetation seeds, in the same rows with carrots. I have known this to be done with good effect, as I supposed. The fact is the carrot vegetates so slow, that the weeds start ahead of it, and it is not easy at all times to see where it is. Now if you would stir the surface between the rows, with a hoe or weed cutter, it is a great convenience, to have the young radishes to show where the rows are. More than this, nothing will be lost by thus planting radishes, for they will have matured long before the ground is needed for the use of the carrot. It so seldom happens, that I find the Professor's notions to accord with my own, that I cannot be quiet, when his teachings are called "arrant nonsense." Perhaps I should not agree entirely, with the reasons he gives, for what he did; but of the utility of the practice I have no doubt.

The carrot crop, when understandingly pursued, is one of the most valuable on our farms. \$200 worth to the acre can readily be grown on fair land.

Sept. 7, 1854.

For the New England Farmer.

THE INDIAN CETONIA.

SIMON BROWN, Esq.—Dear Sir:—The account of the Indian Cetonias, (*Cetonia Inda*), printed in the *New England Farmer* for the 9th of September, was taken (with exception of the misprints) from the first edition of my book. In the second edition, which you should have consulted, will be found the following additional information respecting these pernicious beetles.

"Their love of sweets leads them to attack our finest peaches, which, as soon as ripe, they begin to devour, and in a few hours entirely spoil. I have taken a dozen of them from a single peach, into which they had burrowed so that nothing but the naked tips of their hind body could be seen. When touched, they leave a strong and disagreeable scent upon the fingers."

In my garden, they began the work of destruction this year by the middle of August, when they appeared on the Early York peaches, and they have successively attacked all the other kinds, as fast as the latter began to be mellow. These beetles, together with my neighbors' honey-bees, have spoiled fully one-third of my crop of peaches.

Yours truly,

THADDEUS WILLIAM HARRIS.

Cambridge, Mass., Sept. 11, 1854.

THE CONCORD GRAPE.—*Messrs. Editors:*—Last Spring I procured, as did a large number of persons, the famous *Concord Grape*—the new seedling of E. W. Bull, Esq., of Concord, Mass. Many have been fearing,—and your correspondent among the number,—that this Grape would not answer the expectation that has been awakened in regard to it. Indeed not a few have expressed the belief that it would prove a “humbug.”

I have just had the pleasure of visiting Mr. Bull's vine-yard; and the exhibition of his new seedling, now laden with luscious fruit, is, to me, perfectly satisfactory. The size, beauty, rich bloom, and fine flavor of this grape, fully answer the glowing descriptions that have been given of it. No one can look upon these wonderfully luxuriant vines, loaded with their rich clusters, without resolving to obtain one for his own garden.

I am glad to learn that the extensive sales and the increasing demand for this valuable grape, promise to remunerate Mr. B., in part at least, for his long continued toil and great expense, in obtaining for the country this new and choice seedling.—*Traveller.*

THE ROCKLAND HORTICULTURAL FAIR.—The annual fair of the Rockingham Agricultural Society was held in Exeter, N. H., on Thursday and Friday last. The town was filled with people, and much interest was manifested in all the proceedings of the exhibition. Under the auspices of Henry F. French, Esq., the President of the Association, every thing went off well. The towns of Epping, Hampton Falls, and Kensington, bore tway the palm for town teams of cattle. The show of cattle generally was very fine, and the display of vegetables and fruits good. The annual address was delivered by the editor of the *Connecticut Valley Farmer*, and was an excellent production, replete with sound and practical sentiments.—*Boston Journal.*

THE FAIR IN PROVIDENCE.—The exercises of the annual Agricultural fair commenced in Providence Wednesday, and as we learn from the *Providence Journal*, attracted an immense concourse of people from the surrounding towns. Everything went off well, and the agricultural part of the exhibition was never finer or more interesting. The chief attractions were a plowing match, a drawing match, the cattle show, and the parade of ox teams. The horticultural department of the exhibition was large and beautiful, notwithstanding the effects of the drought were visible in the diminutive size of the fruit. The exhibition of woollen goods and cloths was more interesting than that of last year, and embraced many rich and elegant specimens of goods.

HAMPDEN COUNTY HORTICULTURAL EXHIBITION.—We learn from the *Springfield Republican* that the second exhibition of the Hampden County Horticultural Society was opened in Hampden Hall on Tuesday afternoon, and displayed in all its various departments gratifying evidences of enterprising and successful effort for improved agriculture. The show of pomological specimens was extensive and creditable; and as for vegetables, Springfield challenges the commonwealth. The floral display was beautiful, although deprived of many attractions by the recent drought.

BREADSTUFFS.—A London paper says—“From this harvest to the next there can be no doubt that the difference in the price of wheat, compared with that in the previous twelve months, will be at least 20s a quarter in favor of the public, which on the whole consumption will amount to a boon of £25,000,000 to that body on wheat alone, besides corresponding relief in other grain. Even the cost of the war sinks to a trifle compared with this bounty from the skies; and, notwithstanding all the lavish expenditure incurred, we now stand better prepared for war by some twenty millions than a twelvemonth ago.”

NEW HAMPSHIRE STATE FAIR.—The New Hampshire State Fair will be held this year in the beautiful town of Keene, in Cheshire county, on the 3d, 4th, 5th and 6th days of October. The ground selected for the enclosure is a level plain, about a mile northeast of the railway station. Twenty-four acres of land have been enclosed, and furnished with water; a fine trotting-course has been laid out, and suitable buildings, stalls and pens erected. His Excellency, N. B. Baker, Governor of the State, will be present, and a satisfactory exhibition in all respects is anticipated.

Thousands of head of fine cattle are passing every week through Albany, bound from the West to the Eastern and Southern markets. One day last week a train of nineteen cars, containing 300 head of bees, left the depot of the Cleveland, Columbus and Cincinnati Railroad, bound for New York by the way of Buffalo.

Governor Price, of New Jersey, has caused circulars to be addressed to all the members of the last Legislature, requesting them to forward to the State Department such information as they may be able to gather in their respective counties of the extent of the drought, and the probable damage to the crops.

At the annual Fair of the Agricultural Society of Columbian county, Ohio, two horses are to be awarded, one to the lady who shall give the most “skilful,” and the other to the lady who shall give the most “graceful” exhibition of horsemanship.

Three weeks ago common vegetables were cheaper in the London market than in the markets of Massachusetts; peas being from 36 to 75 cents a bushel; potatoes the same price, &c.

WORKING OXEN.—When oxen refuse to work equally well on either side, or when they pull off against each other, yoke them on the side you wish them to work, and turn them out to feed in that way; they soon get accustomed to it, and work afterwards on either side alike.—*American Farmer.*

ADVERTISING DEPARTMENT.

☐ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....50

☐ The above rates will be charged for all advertisements, whether longer or shorter.

Highland Nurseries, NEWBURGH, N. Y.



A. SAUL & CO. have the pleasure to announce to their patrons and the public in general, that their stock of *Fruit and Ornamental Trees*, which they offer for sale the coming Autumn, is of the very best quality, and embraces every thing in their line that can be procured in the trade.

Dealers and Planters of Trees on a large scale, will be treated with on as liberal terms as can be done by any establishment of reputation in the country. They flatter themselves that for correctness of nomenclature of fruits, (which is a serious consideration to planters,) that their stock is as nearly perfect as it possibly can be, having been all propagated on their own grounds, from undoubted sources. They have propagated, in large quantities, all the leading standard varieties which are proved to be best adapted for general cultivation, especially those recommended by the American Pomological Congress at its several sessions, as well as all novelties of recent introduction, and kinds, particularly suited to certain localities, and sections of the Union and Canadas.

Their stock of Pear Trees is the largest they have ever had to offer for sale, and among the largest in the country, and consists of over 50,000 saleable trees.

The stock of Apple Trees is also very large, as well as Plums, Cherries, Apricots, Peaches, Quinces and Nectarines. Also, Grape Vines, Gooseberries, Currants, Raspberries, Strawberries, &c. &c. &c.

Pears on Quince, Cherry on Mahaleb, and Apple on Paradise stocks, for pyramids and dwarfs for garden culture, and of which there is a choice assortment of the kinds that succeed best on those stocks.

DECIDUOUS AND EVERGREEN ORNAMENTAL TREES AND SHRUBS.

Embracing all the known kinds suitable for street planting, of extra size; also, the more rare and select, as well as all the well known kinds suitable for Arboretums, Lawns and Door-Yard planting, &c., including Weeping Trees, Vines, Garden and Climbing Roses in great variety. Hybrid Perpetuals, Hybrid China, Hybrid Bourbons, Hybrid Damasks, Hybrid Provence, and Bourbon, Tea, China, and Nolsette, and Prairie and other Climbing Roses.

A large quantity of Arbor Vitae for Screens, Buckthorn, Osage Orange, and other hedge plants.

The above will be sold on as liberal terms as similar stock can be purchased elsewhere. For further particulars see catalogues, a new edition of which is just issued, and will be forwarded to all post-paid applicants by mail, on enclosing a post-office stamp to prepay postage. A liberal discount will be made to purchasers who buy to sell again, and extensive planters on their own account.

P. S. Freight paid to New York.
Oct. 1, 1854.

1m

fishkill Landing Nurseries.



The subscriber is again desirous of calling attention to his large stock of **FRUIT AND ORNAMENTAL TREES**, &c. &c., consisting in part of 30,000 Apple, of the most approved varieties. 15,000 Pear, of all the leading sorts. 15,000 Cherry, — 1 to 3 years from the bud. 30,000 Plum, from 1 to 3 years in the bud, together with Apricot, Nectarine, Quince, &c.

10,000 Deciduous Ornamental Trees, consisting of European and American Oaks, Beech, Linden, Elm, Ash, Tulip Trees, Osage Orange, Chestnut, Sycamore, Larch, Maple, Pawlonia, Birch, Horse Chestnut, Mountain Ash and Weeping Willow.

15,000 Evergreen Trees, embracing nearly all the rare sorts that are desirable, both European and American. Also, a large stock of Hedge Plants, such as Arbor Vitae, Red Cedar, &c. Of flowering Shrubs, Roses, Grape Vines, and Climbing Plants, a fine stock—all of which will be sold at reduced prices.

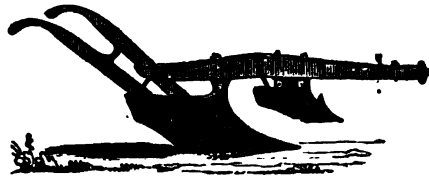
Trees, &c., when ordered, will be taken up carefully, correctly labeled, packed in the best manner, forwarded agreeable to order, and with the least possible delay.

☐ Catalogues sent to all who apply, post-paid, and enclose a postage stamp.

fishkill Landing, Oct. 1, 1854.

1m

THE BOSTON AND WORCESTER EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of ninety, with perfect facility.

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop.

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary.

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

Super-Phosphate of Lime.

THIS celebrated Fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *Phosphate*, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "O. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854.

1*

Oyster Shell Lime.

I HAVE on hand, and am constantly manufacturing this article for farming purposes. It has also been extensively used during the last season for laying the walls of cellars, and stone work of a similar nature, and is found to answer this purpose equally as well as the best stone lime. After 1st March, the prices will be as follows:

For less than 50 bbls.....50c
Or over 50 bbls.....40c
In Bulk—a large car load containing 80 bbls.....30c
A small car load containing 40 bbls.....35c 1/2 bbl.

delivered at either depot in Boston or Charlestown.

JAMES GOULD,

Feb. 18, 1854.

1*

70 State Street

QUINCY HOUSE.

BY ALANSON LONG,

KEPT ON STRICTLY TEMPERANCE PRINCIPLES,

No. 1 BRATTLE SQUARE,

☐ Opposite Brattle St. Church,

BOSTON.

Nov. 1

1*

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Trees.



A large lot of extra sized Apple trees, comprising 40 or 50 of the best varieties, and in excellent order for setting in Orchards, are now for sale low at the Nursery of the subscriber.

Also, a lot of Plum trees, Cherry trees, &c.
JAS. S. DRAPER

Wayland, April 15, 1854. tf

Fruit and Ornamental Trees.



The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines &c. 1000 Buckthorn and Arbor Vitae for Hedges.
S. & G. HYDE.

Newton Corner, March 18, 1854. w*tf

For Sale.



The subscriber offers his farm for sale, on which he now lives, and will give immediate possession. The farm consists of 75 acres of good land, a one-story House, Shop, Barn, Sheds, &c., mostly new, with first rate, never failing water in the house, also a good wood-lot near by, a superior garden with a variety of fruit trees. This farm is situated in WARWICK, Mass., 2½ miles from the Centre, ¼ mile from school, 1 mile from Grist and Saw Mill, and 6 miles from South Orange depot.

Any one wanting a pleasant, healthy farm, can have a more particular description by dropping a line to the subscriber.
JOSHUA T. SANGER.

Aug. 26, 1854. tf

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLD and JOHN NOLAN, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

Terms, \$1.00 per annum in advance.

All subscriptions to commence with the volume, Jan. 1.

The FARMER is devoted exclusively to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

Also published at the same office every Saturday, on a large handsome folio sheet, the

NEW ENGLAND FARMER, (WEEKLY),

An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments, under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

Terms \$2.00 per annum in advance.

The monthly contains nearly the same matter as the Agricultural department of the weekly.

Postmasters and others, who will forward four new subscribers on the above named terms, for either publication, shall receive a fifth copy gratis for one year.

All orders and letters should be addressed, post-paid.

RAYNOLDS & NOURSE,

QUINCY HALL, SOUTH MARKET STREET, BOSTON.

POSTAGE.—The postage on the New England Farmer, monthly, is 1½ cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Superior Imported Stock.



The subscriber offers for a limited period, to allow the use of the following unrivalled stock of cattle, to all persons wishing to improve their farm stock, who will agree to rear the young.

Full Blood Alderney Bull "Major Jack Downing," Full Blood Ayrshire Bull, "Washington," First Premium Mackay Boar, "Webster."

W. G. LEWIS,
Lawn Farm, Framingham.

July 8, 1854. tf

Fertilizers.

BEST PERUVIAN GUANO.

Super-Phosphate of Lime.—"DeBurg's No. 1."

Poudrette, of the best quality.

Ground Plaster, suitable for agricultural purposes.

Ground Bone, Bone Dust and Burnt Bone.

Also, Grass Seeds of reliable quality at the lowest market price.

GEO. DAVENPORT,

5 Commercial, corner of Chatham Street, Boston.

Feb. 18, 1854. tf

Ground Plaster,

FOR SALE, at White's Mills, HAVERHILL, Mass. Apply to JAMES D. WHITE.

Every Farmer who desires to renovate poor pastures, improve his mowing, increase and improve his crops of corn and potatoes, should give this article a full trial; it is a great addition to any compost heap.

Fine clover usually follows the sowing of plaster.

Jan. 23, 1854. tf

Suffolk Swine.



The subscriber offers to the Farmers in Concord, and to all others who wish to improve their stock, the services of his justly celebrated full blood imported Suffolk boar, BULRUSH.

Said boar was imported from England by the subscriber last season, is now 20 months old, and is remarkably hardy and vigorous, and his stock has proved to be very superior.

Concord, Mass., Aug. 19. tf

JOHN RAYNOLDS.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, NOVEMBER, 1854.

NO. 11.

RAYNOLDS & NOURSE, PROPRIETORS.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITOR.

CALENDAR FOR NOVEMBER.

"With kindred pleasures moved, and cares oppress,
Sharing alike our weariness and rest;
Who lives the daily partner of our hours
Through every change of heat, and frost, and show'rs;
Partakes our cheerful meals, partaking first
In mutual labour and fatigue and thirst;
The kindly intercourse will ever prove
A bond of amity and social love."



introduce into the family of every farmer in New England. That *November* should no longer be considered a month in which people may, with great propriety, hang or drown themselves, on account of its gloom, but rather with the poet, that each shall be with kindred pleasure moved, and that their kindly intercourse of life shall prove

"A bond of amity and social love."

And how much cause there is for this in November, about the farmer's home! Beneficent Heaven has crowned his labors with success. His barns, and granaries, and cellars, are filled with the fruits of the earth; his cattle come to their winter home sleek and fat with rich pasturage, while his cheerful fireside attractions invite to that delightful intercourse of which the poet sings. And we believe this to be an object as worthy of culture and care, as were the glowing fruits and golden grain of the orchard and the fields. These will sustain our physical nature, but *that* will strengthen the immortal part, by giving elasticity and contentment to the mind.

Nature is the great Teacher—her school-house doors ever stand open, inviting the inquirer in—but November is the month in which we may be more constant in her courts, because better opportunities are afforded for thought and application than in the summer months. We urge the young to find benches and books and teachers all about them; in the solid earth and stones upon which they tread—in the air they breathe—in the leaves which dance upon the breeze—in the sunlight and shade, the vapors, frosts, dews and clouds. Each will impart some useful truth to him who is willing to seek it. Wisdom is the price of careful application—it cannot be gained by idle and listless minds. Study and labor will overcome all obstacles; books and teachers are now abundant everywhere. To become an earnest student, it is not necessary to enter the school-house with modern desks and seats and conform to codes and regulations. An active mind will find objects for research and contemplation everywhere, in every employment and place. If these occupy his attention, they will lead him to books, and these will reveal to him the thoughts and efforts of other minds as earnest as his own. Men of great acquirements, dull over systematic lessons, and restive under arbitrary rules, have filled the ear of the world, and thus proved that they were students, all the while, in the great school-room of Nature. They prepared themselves for the active business of life, rather than to be nice and critical in mere book-learning.

For this preparation, none have better opportunities than the young farmer. Six months of the year afford him as much leisure as is desirable for study and investigation, and during the other six, while engaged in his out-door pursuits, he may apply his acquirements to the things about him. In this way his mind will become stored with useful facts, such as are applicable to the profession of his choice. As these are mastered, the mind will stretch away into other studies,

and scan the pursuits of other men through the whole range of the sciences and arts.

November, then, may be a pleasant and profitable month for the farmer. It has its characteristics, but they are not sad ones. It throws off its robes, as a warm man his coat, because it no longer needs them. November winds and storms remind us of the necessity of making our dwellings all tight and convenient for the still ruder winds and storms of more rigorous months. No house can be kept warm where the underpinning is loose, and the wind sweeps under the floors. Roofs should be made tight, and the barn close, where the animals stand.

Cattle and hogs should be fatted rapidly now, both having dry and warm beds, and fed liberally.

Carrots and beets must be gathered before heavy frosts—turnips may remain later. Strawberry beds should be mulched, and tender raspberries laid down and protected.

Hardy, bulbous roots, such as hyacinths, tulips, crown imperials, lilies, narcissus, &c., can be planted as long as the ground remains open; but the beds should be immediately covered a few inches deep with litter.

Apple trees may be transplanted with success. Bank them up well with earth to support them through the winter; in the spring it must be removed.

"We now hear the busy flail in the barn, as the thrasher pursues his task from day to day, never lacking company, for he is surrounded by the whole family of fowls, ever ready to hunt up a neglected ear that has escaped his hearty blows. In the farm-yard we see the cattle knee-deep in the broken straw which the thrasher has turned out, and lowing wistfully over the fence, as if they wondered what summer had done with all its green, and seeming to say, as plainly as they can speak, that they like not the dry provender which is given to them, and care not how soon they are ankle-deep in the rich, luxuriant grass."

PAY OF MEMBERS OF CONGRESS.—By the act of the 22d September, 1789, the pay of a member of Congress was fixed at \$6 per day and \$6 for every twenty miles of travel. This was to be continued until the 4th of March, 1795, after which it was to be \$7 per day and \$7 for every twenty miles travel. This act was limited to the 4th of March, 1796. On the 10th of March, 1796, the compensation was fixed at \$6 per day and \$6 for every twenty miles travel. By the act of the 19th March, 1816, the pay was changed from a daily to an annual compensation; the President *pro tem.* of the Senate and the Speaker of the House each \$3,000 per annum, and each member \$1,500 per annum. The mileage was not changed. This last act created great excitement in the country, and even arrayed strong opposition to Mr. Clay, who had supported it. Many members were defeated at the next election in consequence of its

passage. It was repealed on the 6th February, 1817, to take effect after the close of the then session of Congress. By the act of the 22d January, 1818, the pay was fixed at \$8 per day and \$8 for every twenty miles travel; the President *pro tem.* of the Senate and the Speaker of the House to receive \$8 per day each additional. This is the present pay.—*National Intelligencer.*

A SONG OF THE RAILROAD.

Through the mould and through the clay,
Through the corn and through the hay,
By the margin of the lake,
O'er the river, through the brake,
O'er the bleak and dreary moor,
On we hie with screech and roar!
 Splashing! flashing!
 Crashing! dashing!

Over ridges,
Gullies, bridges!
By the bubbling rill,
 And mill—
Highways,
By-ways,
 Hollow hill—
Jumping—bumping—
Rocking—roaring
 Like 40,000 giants snoring!
By the lonely hut and mansion,
By the ocean's wide expansion,
Where the factory chimney smokes,
Where the foundry bellows croaks—
 Dash along!
 Slash along!
 Crash along!
 Flash along!
 On! on! with a jump,
 And a bump,
 Add a roll!
Hies the fire-fiend to its destined goal!

O'er the aqueduct and bog,
On we fly with ceaseless jog,
Every instant something new,
Every instant lost to view,
 Now a tavern—now a steeple—
 Now a crowd of gaping people—
 Now a hollow—now a ridge—
 Now a cross way—now a bridge—
Grumble—stumble—
Rumble—tumble—
Fretting—getting in a stew!
Church and steeple, gaping people—
Quick as thought are lost to view.
Every thing that eye can survey,
Turns hurly-burly, topay-turvy!
Each passenger is thumped and shaken,
As physics is when to be taken.

By the foundry, past the forge,
Through the plain and mountain gorge,
Where cathedral rears its head,
Where repose the silent dead!
Monuments amid the grass,
Fill like spectres as you pass!
If to halt a friend inclined,
Whish! whiri! ka-swash!—he's left behind!
 Rumble, tumble, all the day—
 Thus we pass the hours away.

33 Rousseau says, "The empire of woman is an empire of softness, of address, of complacency. Her commands are carresses, her menaces are tears."

For the New England Farmer.

SOME WANTS WANTED BY FARMERS.

That farmers, as a body of working men, are in want of capital and a great many improvements on the farm, no one can deny; and that more of "slack farming" is gone through with every year, for the want of well-invested capital on the farm, no one can doubt. But then, capital in the shape of "money" is not all that is wanted to make farming successful. For some part of a farmer's capital consists in his knowledge and experience in knowing how to apply his money capital to the best advantage, and in such a manner as will make the greatest improvement on the farm. Now I have been led to these remarks in seeing the great want of capital, in means and in farming experience both, so that it has become a question worthy of serious consideration as to what is the cause and the remedy. In fact, I cannot ride out five miles in any direction from my own residence, without seeing this very principle carried out, and a want of the right application of means, which every farmer may have, more or less, by the right management of farming operations. I know of a section of farmers, in an adjoining county, where this principle seems to have been acted upon from observation ever since the American Revolution, and how long previous to that time I cannot say. I doubt, in fact, whether the face of the country now presents as good an appearance as it did then; for fifty years ago they must have had some very good farm fences; and as the same fences remain, what there is of them, the reader can judge in what condition the general appearance of the country is at present.

Now what is the remedy for this fault and slackness in farming operations, whose management carries its own condemnation on its face? There must be, in the first place, a general waking up on the part of farmers to more energy in the business; then the judicious outlay of capital is another thing wanted, and it must be obtained at some rate, as nothing can be done without it. For it is as strictly necessary that "capital" should be laid out in farming business as it is in any other trade. But then, says the farmer, how is this capital to be obtained? I have not got the means, says the young farmer just starting in life; to which I answer, that is the same complaint that nine-tenths of the farmers in the country can make. Still, as it is known that where there is a will there is a way, so it may be here, although we may not be able to lay down a certain rule to govern all, or guide them. When a young farmer has just started on a new place, instead of laying out all his capital in land, let him save part of it to lay out in farm buildings and other improvements—of course owning less land, and having more ready money to improve what he has got. But, as is more often the case in New England, where the farmer occupies the lands that his father did before him, if ready capital is wanted and it cannot be readily obtained, put a mortgage on a few acres of land and raise the money in that way. For it is better to pay interest money for a few years, than to go without the means to invest in farming improvements; for money laid out in landed property for farming purposes is a miserable investment,

unless there be capital employed to make the land pay.

And this is the reason why so many of that class of farmers referred to above are always complaining that farming capital will not pay, when the plain truth is, they never have given the farm the first fair trial to see whether it would pay or not. Such farmers, as soon as they get a spare hundred dollars, instead of laying it out on the farm, they will go and loan it out to some capitalist, or invest it in a "stock company or Savings Bank," institutions which are good in their place, as, for mechanics and men of small means, a Savings Bank is a good place to invest money. But farmers had better be borrowers of such institutions than lenders to them, as the capital can be much better employed on the farm, where it may be made to pay from eight to ten and twelve per cent. on the investment, with good management. But the great difficulty is, farmers are so fearful that if an extra dollar is laid out on the farm, that they will not see it again. What is wanted in every town is, for some farmer to go forward as a "leader" in farming matters, and make a thorough renovation throughout the neighborhood. Farmers, like other men, are led and influenced by others when they can see that a certain course is successful, if they are not tied up to "old fogyism" entirely. But if they are, then it is very little use to talk to them on farming improvements. There is a class of farmers to whom these remarks will not apply, as they are ever ready to go forward and make improvements on the farm at all times.

These ideas and wants suggest to us other subjects connected with farming improvements important to the farmer. During the attendance of the late "State Fair in New Haven," a good chance was given for farmers and citizens generally to learn something of value and importance to any one interested in the cultivation of the soil. And what citizen is not interested, more or less, or should be, in this business, I would inquire! From observation, I am satisfied that farming improvements generally are not always connected together as they should be. I have found that improved stock, of various kinds, will multiply much faster among farmers than will improved agricultural implements and machines to work the soil. In fact, I know of many farmers who are anxious to show fine stock of various kinds, yet their farming tools are a complete "scare crow" in the fields. I do not believe now that there is more than one farmer out of ten in the "State" but that, if their farming tools were all put together in one "heap," they would scare a "Japan farmer." By this I mean to show that farmers are much more behind on this point than on any other, or at least with that of improved stock; while I know that there was no feature of more consequence in our "State Fair," than the show of farming implements and machines, although the assortment was not as extensive as have been seen at other exhibitions. But the plain English is, farmers, as well as the mass of citizens generally, will pay five dollars to be amused where they will pay one dollar to be instructed. This principle I saw carried out at our "State Fair," as Thursday was the day for the show of horses, as it was also of the "plowing match." Going

from the show yard to the plowing ground, at three o'clock in the afternoon, was like going out into a "calm" directly after a "tornado"; all was quiet, and very little excitement.

This "plowing match," taking all things together, I think was the best "match" that has yet taken place in New Haven, there being some eighteen plowmen, with various plows, as well as subsoiling. The plowing ground was in plain sight of the "show ground," not over a quarter of a mile distant. And yet there was not one farmer in attendance at this "plowing match" where there should have been twenty. In fact, there was the least attendance at this "match" that I have seen in the last fifteen years. But where were the farmers? They were on the "show ground," taken up with the "trotting match" that was coming off at the time. Now if this does not prove that farmers will pay five dollars to be amused where they will pay one dollar to be instructed, what does it prove? I repeat, that one of the most instructing features of the whole "Agricultural Fair" is the plowing match, and certainly one of the most important to farmers themselves. And why so? Because they can learn more of a branch of farming of which they are more ignorant of, viz. good plowing, than in any other branch of farming operations. Observation has shown us that a farmer will tolerate poor plowing in his fields, when he would not poor sowing or cradling. One reason of this is, very few farmers use plows or other tools of the right stamp. And of course good work can not be made with a badly constructed plow. While, on the other hand, he does not always follow good plowing with the best implements. Still a farmer or plowman who cannot make good work with a good plow, after a few trials, must be a great "slouch" in the business, to say the least of it, and shows a want of taste in the art of plowing.

Now as to the "trotting match," it may be all well enough in the way of it, and this feature of the exhibition will probably draw more people together than any other attraction given. And yet I will inquire what difference it will make to the public whether "Joe Duggins" has a "nag" that will go around the half mile "course" twice in 2.40, or "Sam Spout" has one that will go around in 2.50. This appears to be the amount of the "trotting," so far as I understand it. I remember, after one or two "beats" had been made, round came a "marshal" and said, "clear the track, boys, we are going to have some more fun." Just as though that large gathering of people had come there to see how much "fun" was going on, instead of coming there to be instructed and learn something from the exhibition.

I repeat, finally, that farmers and citizens generally can learn and improve from these "annual Fairs" just according as they have the disposition to do; and, while some may go for the sake of "fun" and excitement, others will go to improve and be instructed.

Yours, &c., L. DURAND.

Derby, Ct., Oct., 1854.

He who hopes for glory from new discoveries, must not be ignorant of old ones.

IT ISN'T ALL IN BRINGING UP.

It isn't all in "bringing up,"
Let folks say what they will;
To silver scour a pewter cup—
It will be pewter still.
E'en of old, wise Solomon,
Who said "train up a child,"
If I mistake not, had a son
Proved rattle-brained and wild.

A man of mark, who fain would pass
For lord of sea and land,
May have the training of a son,
And bring him up full grand;
May give him all the wealth of love,
Of college and of school,
Yet after all, may make no more
Than just a decent fool.

Another, raised by Penury
Upon her bitter bread,
Whose road to knowledge is like that
The good to Heaven must tread,
Has got a spark of Nature's light.
He'll fan it to a flame,
Till in burning letters bright
The world may read the name.

If it were all in "bringing up,"
In counsel and restraint,
Some rascals had been honest men—
I'd been myself a saint.
O! 'tis n't all in "bringing up,"
Let folks say what they will;
Neglect may dim a silver cup—
It will be silver still.

SWEET APPLES.

Whoever will introduce a new richly flavored, sweet winter apple of good size, or supply the market with any good varieties not grown, will find a fair profit, and supply the pangs of unnumbered excellent housewives with the means of preparing a most delicious dessert.—N. E. Farmer.

We like the above suggestions: If any man does not like a good sweet apple well baked, his taste and ours is very different. Why then, asks one, are sweet apples such a drug in the market? They are not. There may be times when early sweet apples are plenty. We have several varieties of these, and their day is a very short one. But about four weeks are allowed for gathering, marketing and consuming nearly one-half of the good varieties of sweet apples the market affords; and this is just the time when other fruits are in their greatest abundance and perfection. Throw into the market to-day an apple as good as the early Golden Sweet, and let the price be such as to bring it within the reach of the frugal and industrious portion of the community, and it would command a ready market, to an extent far above the ability of the country to supply. But the wants of the community are to a great extent artificial. A vast many articles in every department of living, have now become, in our view indispensable, which a few years since were unknown. We see an article, we try it, we like, continue to use, and feel that we cannot live comfortably without it. Such will, we are confident, be the case with sweet apples of good size and flavor. Let them be produced in quantities that will enable the cultivator to use economy in the production and sale, and a fair profit may be secured to him, while the price shall still enable

the consumer to use freely, without the idea of a high-priced luxury. Now a bushel of prime apples costs two-thirds of a bushel of wheat, and more in our market than the wheat in a western one.

We may learn a lesson from the use of apples now. They cost too much to eat, yet custom has made it requisite in all families to have pies made of apples. These are called a necessary article, and most families will use more or less apples in this way, let the price be what it may. This custom arose when apples which would answer for pies were plenty and cheap, and it continues when they are scarce and dear. So let good sweet apples, not those tough as white oak, astringent as a gall nut, bitter as a pig walnut, or dry as a piece of cork, be furnished freely, and they will soon become an essential article of good living, and a steady demand, conducive to the profit of the producers, and to the happiness and advantage of the consumer, will be created.

NUTRITION IN VARIOUS GRAINS.

Wheat is one of the most important of all crops. The grain contains from fifty to seventy per cent. of starch, from ten to twenty per cent. of gluten, and from three to five per cent. of fatty matter. The proportion of gluten is said to be the largest in the grain of quite warm countries.

It is a singular fact that, in all the seed of wheat and other grains, the principal part of the oil lies near or in the skin, as also does a large portion of the gluten. The bran owes to this much of its nutritive and fattening qualities. Thus, in refining our flour to the utmost possible extent, we diminish somewhat its value for food. The phosphates of the ash also lie, to a great degree, in the skin. The best fine flour contains above seventy pounds of starch to each hundred. The residue of the hundred pounds consists of ten or twelve pounds of gluten, six to eight pounds of sugar and gum, and ten to fourteen pounds of water, with a little oil.

Rye flour more nearly resembles wheaten flour in its composition, than any other; it has, however, more of certain gummy and sugary substances, which make it tenacious, and also impart a sweetish taste. In baking all grains and roots which have much starch in them, a certain change takes place in their chemical composition. By baking, flour becomes more nutritious, and more easily digested, because more soluble.

Barley contains rather less starch than wheat, also less sugar and gum. There is little gluten, but a substance somewhat like it, and containing about the same amount of nitrogen.

Oat meal is little used as food in this country, but it is equal, if not superior, in its nutritious qualities, to flour from any of the other grains; superior, I have no doubt, to most of the fine wheaten flour of the northern latitudes. It contains from ten to eighteen per cent. of a body having about the same amount of nitrogen or gluten. Besides this there is a considerable quantity of sugar and gum, and from five to six per cent. of oil or fatty matter, which may be obtained in the form of a clear, fragrant liquid. Oat meal owes their peculiar agreeable taste and smell to this oil. Oat meal, then, has not only an abundance of substance containing nitrogen, but

is also quite fattening. It is, in fact, an excellent food for working animals, and, as has been abundantly proved in Scotland, for working men also.

Buckwheat is less nutritious than the other grains which we have noticed. Its flour has from six to ten per cent. of nitrogenous compounds, about fifty per cent. of starch, and from five to eight per cent. of sugar and gum. In speaking of buckwheat or of oats, we of course mean without husks.

Rice was formerly supposed to contain little nitrogen; but recent examinations have shown that there is a considerable portion, some six or eight per cent., of a substance like gluten. The percentage of fatty matter and of sugar is quite small, but that of starch much larger than any grain yet mentioned, being between eighty and ninety per cent.; usually about eighty-two per cent.

Indian corn is the last of the grains that we shall notice. This contains about sixty per cent. of starch, nearly the same as in oats. The proportion of oil and gum is large—about ten per cent.; this explains the fattening properties of Indian meal, so well known to practical men. There is, besides, a good portion of sugar. The nitrogenous substances are also considerable in quantity—some twelve or sixteen per cent. All these statements are from the prize essay of Mr. J. H. Salisbury, published by the New York State Agricultural Society. They show that the results of European chemists have probably been obtained by the examination of varieties inferior to ours; they have not placed Indian corn much above the level of buckwheat or rice, whereas, from the above, it is seen to be "in most respects superior to any other grain."

Sweet corn differs from all other varieties, containing only about eighteen per cent. of starch. Amount of sugar is of course very large; the nitrogenous substances amount to the very large proportion of twenty per cent.; of gum, to thirteen or fourteen; and of oil, to about eleven. This, from the above results, is one of the most nourishing crops grown. If it can be made to yield as much per acre as the hardier varieties, it is well worth a trial on a large scale.—*Professor Norton.*

For the New England Farmer.

STATE FARM AT TEWKSBURY AGAIN.

MESSERS. EDITORS:—I like to relieve the minds of those under fear. Your correspondent *, of the 14th inst., says,—“hope he has made no charge of it in his books.” I here tell him no; were I disposed to make a charge for my advice to the * that have no name in Astronomy, I should be troubled to collect it by any code of laws in mundane Massachusetts, and therefore I had better “bless the stars” than fee a lawyer for such an aerial pursuit. As to the nature of the soil on the State Farm at Tewksbury, I continue of the same mind as when I wrote before, and believe that under a system of judicious cultivation, that all I stated then will be found correct. If the stars have been so obscured by clouds and fog that they have had no opportunity to shine down upon the wells and land belonging to the State Farm at Tewksbury, I should candidly

advise them to take a peep in fair weather at the "aforesaid premises," and I will guarantee in advance that I will make no charge for "advice," but render to the poor services gratis.

Wilmington, Oct. 16, 1854. S. BROWN.

HOG KILLING IN CINCINNATI.

We spent a couple of hours the last week in January, in witnessing the process of killing and dressing hogs, according to the most approved plan, at one of the largest establishments near the Brighton House, Cincinnati. The building and its appurtenances are calculated for dispatching *two thousand* hogs per day; and at the rate the bloody work was done while we were present, that number would be done up in less than eight working hours! The process is as follows:

The hogs being confined in pens adjacent, are driven, about twenty at a time up an inclined bridge or passage opening by a doorway at top into a square room just large enough to hold them; and as soon as the outside door is closed, a man enters from an inside door, and with a hammer of about two pounds weight and three feet length of handle, by a single blow aimed between the eyes, knocks each hog down, so that scarce a squeal or grunt is uttered. In the mean time a second apartment adjoining this is being filled; so the process continues. Next a couple of men seize the stunned ones by the legs and drag them through the inside doorway on to the bleeding platform, where each receives the thrust of a keen blade in the throat, and a torrent of blood runs through the lattice floor.

After bleeding for a minute or two, they are slid off this platform directly into the scalding vat, which is about twenty feet long, six wide, and three deep, kept full of water heated by steam, and so arranged that the temperature is easily regulated. The hogs being slid into one end of this vat, are pushed slowly along, by men standing on each side with short poles, turning them over so as to secure uniform scalding, and moving them onward so that each one will reach the opposite end of the vat in about two minutes from the time it entered. About ten hogs are usually passing through the scalding process at one time.

At the exit end of the vat is a contrivance for lifting them out of the scalding water, two at a time unless quite large, by the power of one man operating a lever, which elevates them to the scraping table. This table is about five feet wide and twenty-five long, and has eight or nine men arranged on each side, and usually as many hogs on it at a time, each pair of men performing a separate part of the work of removing the bristles and hair. Thus the first pair of men remove the bristles only, such as are worth saving for brush-makers, taking only a double handful from the back of each hog, which are deposited in a barrel or box. The hog is then given a gingle turn onward to the next pair who with scrapers remove the hair from one side then turn it over to the next pair who scrape the other side, the next scrape the head and legs, the next shave one side with sharp knives, the next do the same to the other side, and the next the head and legs; and each pair of men have to perform their part of the work in only *twelve seconds* of time, or at the rate of *five hogs* in a minute, for three or four hours at a time!

Arrived at the end of this table, with the hair all removed, a pair of men put in the gambrelstick and swing the carcass off on the wheel. This wheel is about ten feet in diameter, and revolves on a perpendicular shaft reaching from the floor to the ceiling; the height of the wheel being about six feet from the floor. Around its periphery are placed eight large hooks, about four feet apart, on which the hogs are hung to be dressed; and here again we find remarkable dispatch secured by the division of labor. As soon as the hog is swung from the table on to one of these hooks the wheel is given a turn one-eighth of its circuit, which brings the next hook to the table and carries the hog a distance of four feet, where a couple of men stand ready to dash on it a bucket of clean water, and scrape it down with knives, to remove the loose hairs and dirt that may have come from the table. The next move of the wheel carries it four feet further, where another man cuts open the hog almost in a single second of time, and removes the large intestines or such as have no fat on them worth saving, and throws them through an open doorway by his side; another move of four feet carries it to the next man who lifts out the remainder of the intestines, the heart, liver, &c., and throws them on to a large table behind him, where four or five men are engaged in separating the fat and other parts of value; another move and a man dashes a bucket of clean water inside, and washes off any filth or blood that may be seen; this completes the cleaning or dressing process, and each man at the wheel has to perform his part of the work in twelve seconds of time, as there are only five hogs at once hanging on the wheel, and this number are removed and as many added *every minute*. The number of men employed, (besides drivers outside,) is fifty; so that each man may be said to kill and dress one hog every ten minutes of working time, or forty in a day. This presents a striking contrast with the manner that farmers commonly do their "hog killing."

At the last move of the wheel a stout fellow shoulders the carcass (while another removes the gambrel-stick) and backs it off to the other part of the house where they are hung up for twenty-four hours to cool, on hooks placed in rows on each side of the beams just over a man's head. Here are space and hooks sufficient for two thousand hogs, or a full day's work at killing. The next day, or when cool, they are taken by teams to the packing-house in the city, where the weighing, cutting, sorting and packing is all accomplished in the same rapid and systematic manner.—*Ohio Cultivator*.

ABOUT CRANBERRIES.

TO KEEP CRANBERRIES.—Gather them when quite dry, cork them closely in dry bottles, and place in a cool, dry cellar. They will also keep in bottles or in casks of water, the latter being the mode practised in the north of Europe and in this country, and in which it is sent a long distance, without injury; the fruit is put in a perfect state into tight barrels, filled with water, and headed up.

CRANBERRY JELLY.—Make a very strong isinglass jelly; when cold, mix it with a double quantity of cranberry juice, pressed and strained;

sweeten and boil it up, and make it into the desired shape, by straining into the proper vessels; use good white sugar, or the jelly will not be clear.

ORANBERRY AND RICE JELLY.—Boil and press the fruit, strain the juice, and by degrees mix it with as much ground rice as will, when boiled, thicken to a jelly; boil it gently, stirring it, and sweeten to your taste; put it into a basin or form, and serve with cream or milk.

COMMONWEALTH OF MASSACHUSETTS.

BOARD OF AGRICULTURE.

STATE HOUSE, BOSTON, Sept. 15, 1854.

DEAR SIR:—Will you be so kind as to favor me with answers to the following questions, together with such other suggestions as may be of general interest or value to the farmers of this Commonwealth.

If not in your power to give the desired information, you will do me a great service by interesting some one in your town who will procure and send it to me.

1. What has been the effect of the drought upon the corn, potato and other crops, the present season, and what is their estimated yield per acre?

2. What has been the comparative effect of the drought on deep and shallow plowed lands?

3. What has been the comparative effect of the drought on lands where the manure was spread and plowed in, and on those where it was put in the hill?

4. What has been the effect of the drought on forest trees?

5. What is the best mode of guarding against the effects of droughts like that of the present season?

6. Have there been any experiments in irrigation in your town, and if so, with what result?

7. To what extent has the disease affected the potato the present season?

8. What is the estimated decrease in the quantity of potatoes cultivated, and the decrease, per acre, on account of the disease, or other causes?

9. What has been the result of experiments this season in the use of guano, super-phosphate of lime, poudrette, or other concentrated manures?

10. To what extent is guano used in your town, and on what soils does it produce the best results?

11. Have you used guano several years in succession on the same soil, and if so, with what apparent result on the soil and crops?

12. What is the comparative cost or value, per ton, of the different kinds of manures used on the farm, and which produces the best return?

13. What is the best way of using swamp muck, and on what soils should it be used?

14. What is the worth of dry swamp muck, per cord, for agricultural purposes?

15. What is the average cost of raising and storing one acre of Indian corn, rye, wheat, oats, or barley, in your town, the average yield per acre, and the price per bushel?

16. How many pounds of Indian meal are equivalent to one hundred pounds of good English hay, as food for stock?

17. What is thought to be the value of apples, either for flesh or milk, for stock, and the value of cooked apples for swine?

18. To what extent have the ravages of worms affected the orchards this season?

19. What number of mowing machines have been used in your town, and with what success?

20. What is the cost, per head, of raising pigs up to the age of nine months, and what is the average value at that age?

21. What is the cost of raising a horse up to the age of three, four or five years, and what is the average value at those ages?

22. What proportion of the farmers of your town derive their entire support from the farm?

23. Has the number of farmers in your town increased or decreased within the last ten years, and how much?

You will greatly oblige me by sending a reply before the first of November.

Very truly, your obedient servant,

CHARLES L. FLINT,

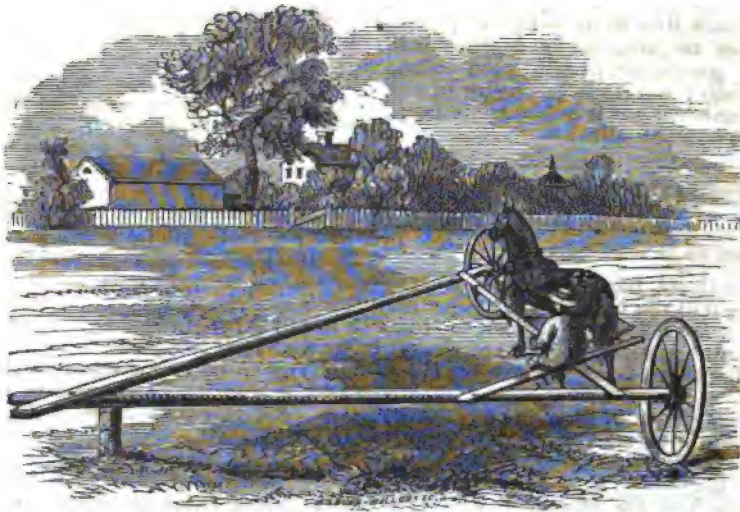
Secretary of the Board of Agriculture.

GARDENS THAT NEVER FAIL.

"My garden failed last year, owing to the drought," was the remark of a friend of ours, when apologizing for the slovenly appearance of the patch of ground which he dignified with the name of *garden*, and in which, each year, after plowing and harrowing the ground, he is accustomed to plant cabbages, onions, beets, cucumbers, melons, &c., for the supply of his family; but the soil being clayey, and not over 5 or 6 inches in depth, with a compact subsoil beneath, the crops were of course liable to dry up in such a season of severe drought as was last year in June; and as such seasons are by no means unusual in this climate, it is good policy for every one who has a garden or vegetable patch, to adopt such a system of culture as will prevent the danger of failure from this source.

Deepening the soil is the only effective means of protection against failure from drought. Plow or spade up the subsoil in the fall, so as to expose it to the mellowing effects of frost, say to the depth of a foot at least, and if deeper so much the better, adding a good supply of stable manure; the crops will then push their roots so deep, and moisture will rise from below so constantly, that while other gardens around may fail from drought, this will continue green and flourishing; and the increased yield as well as improved quality of its products will in a single year almost or quite pay for the improvement.

Cucumber, melon, and similar vines appear to have small roots, but their roots run very deep if opportunity is offered them. Experienced gardeners will not fail to give them *deep* as well as rich ground, in this sunny climate where droughts are so frequent. The same is true of cabbages, and in short all kinds of garden vegetables. The directions for the culture of such things as are given in most books on gardening, are written by persons unaccustomed to so dry and warm a climate as ours, and hence are deficient in not sufficiently insisting upon deep culture as a preventative of injury from drought. We find it necessary to give "line upon line" on this subject.—*Ohio Cultivator*.



BREAKING COLTS.

In the *Boston Cultivator* of Sept. 16, we noticed an engraving illustrating a new mode of breaking colts, by a Mr. PHINEAS FIELD. The mode of performing this work is so simple and so favorable, that we have made some improvements upon the engraving, and give the description in Mr. Field's own words. He says,—“a little more than one year since, having three fine colts that were wholly untutored, I adopted a new expedient for bringing them into subjection, which succeeded to a charm. Several of my neighbors availed themselves of the privilege gratuitously offered them by the use of my apparatus in breaking their colts, and in every case they were delighted with the ease, safety and thorough success of the scheme. Last Autumn, having bought another large and vigorous colt of three years past in age, and wishing to bring it under subjection, I resorted to the same method that was found so effectual last season, which has been equally satisfactory, both to myself and my neighbors, who have either availed themselves of the use of the apparatus, or have witnessed its operation; and in compliance with their suggestion, I send you a drawing of the *run-round*, now in rig in my yard for breaking colts. To the machine thus completed I harness the colt, I care not how ugly or ungained, buckling the pole strap so short that he will have no slack harness; then tying his halter to the cross-bar, I pull off his bridle and let him have a fair chance and his own course. He never runs at first, for fear of the wheel before him, but alternately trots and

stands still. After the colt has been harnessed an hour or so, I seat myself astride the rear pole at the point where the inner end of the bar supporting the whipple-tree is attached, when he generally starts off at a rapid speed; I retain my seat until the colt comes to a stand, which is always after he has been from six to twenty rounds. I then feed him a handful of oats, and put a wisp of hay in the rope which confines the pole strap, and leave him to pursue his own course. He should be kept harnessed in this way through the day, being visited frequently with the oat dish, and supplied with hay, where he can help himself at will.

The second day let the colt be bridled, with leading lines attached, and fed a few oats as soon as harnessed, then left for some time to promenade at his leisure, then drove, and taught to start and stop at bidding. After being drilled in this way for half an hour, make fast one of the wheels to a post a little outside of the range, and leave him for an hour or more, thus teaching him to stand; keep him harnessed through the day, occasionally feeding, driving, backing, and teaching him to stop and to stand still, but using no harsh measures, for none are needed. After three such days of training, I have always succeeded in making a colt completely manageable, and hesitate not to take my wife on board a cutter or wagon for a ride, having done so repeatedly. I consider the above method for breaking colts cheap, safe, expeditious and effectual, and those who have examined the affair, say that a colt broken to go in that machine will go anywhere.

Explanation of the Drawing.—A post set firm

in the ground, and rising three feet, with a shouldered three-inch round tenon or pivot at the top.

Two straight, rough, hard wood poles, thirty feet long, eight inches in diameter at the butt ends, and four inches in diameter at the tops. One of these poles is confined on the top of the post, six feet from the butt end by a round mortice, three and a half inches in diameter. The other pole is lapped into the first, near their butt ends, made fast by locking, and by a two inch pin.

The hind wheels of a lumber wagon, fitted on the ends of the poles.

Crossbar, a rough pole twelve feet long, bolted at each end on the long poles, four feet from the wheel hubs.

Rough pole, bolted on one of the main poles and on the cross bar, to support the whipple-tree.

An augur hole bored through the forward pole, in which is fastened a rope for confining the pole strap of the harness."

For the New England Farmer.

ON MATURING PLANTS.

In a communication in your August number by A. G. Comings, on maturing plants, are many dogmas, which, if true, should not only be talked about by somebody, but acted upon by all. He remarks that a soil that contains no carbon in form of vegetable matter or otherwise, cannot mature seed, though a stock may be produced, and hampers the growth of wheat straw with worthless seed, and extends the same remarks to corn, rye and oats. Where can a soil be found, that any farmer would till, destitute of vegetable matter? Experience shows the uncertainty of a crop of wheat and the certainty of a crop of corn on the same soil. How will Mr. Comings account for this difference?

He remarks that a good crop of turnips, or cabbage, can be produced with a small amount of vegetable matter in the soil, but that seeds of them cannot be raised on such soil. I would respectfully ask what are his proofs of this position. My own long experience is, that cabbage and turnip seed can much more certainly be raised than good heads of cabbage or good turnips. Indeed, turnips will often refuse to increase into large good bulbs, and cabbages to head, but seed will the next year be produced plentifully from these worthless turnips and cabbage stumps. Where does the carbon come from that produces these things?

He asserts that those plants which produce seed the first year of their growth, and then die, draw away the substance of the roots to mature the seeds, and is the cause of their death. Is this true, or do they die because they have fulfilled the law of their being? Are these not perennial plants that produce and mature their seed from the first and many successive years from the same roots? Clover is a well known biennial plant, and its life is limited to that period generally, whether suffered to mature its seed or not, so far as my observation and experience of many years

indicate. I would ask who has succeeded in preserving clover for many years in a thrifty condition, simply by preventing its maturing its seed.

Some farmers never plow in grain crops, and yet for many years raise good crops of corn and grain. How is this fact reconciled with his remarks about seed producing crops exhausting the soil, and rendering it necessary to plow in grain crops?

Mr. Comings asserts that some plants do not come to maturity to produce seeds for several years, and classes potatoes among them. He says potatoes before they mature, feed carbon and other elements more largely from the atmosphere and produce large tubers—they appropriate more carbon in the form of atmospheric gas—and that after they become seed producing kinds they pour less downward into the tubes, and consequently an excess of gaseous food is more injurious to them, and they are more liable to disease; and that roots and seeds do commonly grow at the same time. Now I would inquire where Mr. Comings gets all these facts in relation to potatoes? I have frequently raised potatoes from the seed, and my experience is that several years are required to get a full size of tuber instead of large tubers the first year or two from the seed. Is it a fact ascertained from experience and observation on a wide field that seed producing potatoes are more liable to disease than non-seed producing ones? Some species of potatoes produce no seed from balls—others but few, and others very abundantly; and this diversity, so far as I have observed, does not at all depend on the time they were first produced from the seed. It is an incident of the variety as much as color, flavor or size. Do not the ball and seeds of potatoes grow at the same time with the tuber—if not, which grows first?

Among other dogmas, Mr. Comings says, that in the period before maturity every plant feeds more from the atmosphere, and at maturity, more from the soil;—that the growth of grass for a few days after blossoming, exhausts the soil more than many days of growth does before the time of blossoming. I would inquire how these dogmas are proved to be true? Are they drawn from theory or from facts and well conducted experiments? If from experiments, what is the precise number of days embraced in the terms "few" and "many" in the growth of grass before and after blossoming to exhaust the soil to the same extent?

There are many dogmas promulgated by agricultural writers, that every man of experience and observation knows to be without foundation in truth. If writers would be more careful in what they assert for principles and facts we should hear sneers about book farming less frequently than we do.

RUFUS MCINTIRE.

VALUE OF AGRICULTURAL PAPERS.—A subscriber in Connecticut says—"I am much indebted to the *Cultivator* for remedies which have saved me two cows, thereby saving enough to pay for it a lifetime, beside the great amount of knowledge obtained from it on all other subjects."—*Albany Cultivator*.

Beef cattle now arriving at the Baltimore market are poor in condition, owing to the injury done to the pasturage by the long drought.

CATTLE SHOW AT LEOMINSTER.

The third Annual Exhibition of farm products and articles of manufacture, took place at Leominster, in this State, on Wednesday, Sept. 20. This beautiful and flourishing town is on the Fitchburg railroad, five miles from Fitchburg and 45 from Boston. The surface is broken into many gentle hills, with others that may almost be dignified with the title of mountains; while meandering through the valleys is a large branch of the Nashua, and two or three smaller streams. The soil is stony and fertile, and the agricultural condition of the town considerably in advance of a majority of the towns in the State, and, consequently, there is a high degree of intelligence and moral culture among the people. Among the mechanical pursuits, there are three or four establishments for the manufacture of pianofortes, several for combs, of every description. It is related, in *Hayward's Gazetteer*, that in 1837 the manufactures of the town amounted to half a million of dollars, and since that time, their increase has been constant and rapid. The articles then manufactured consisted of cotton and woollen goods, paper, leather, boots, shoes, hats, scythes, bellows, palm-leaf hats, straw bonnets, chairs, tin and cabinet wares, &c. It is probable that the making of some of these articles has been discontinued, and we know that others have been introduced, as, for instance, the article of combs, which, probably, cannot be excelled by those manufactured at any other place.

At 4 o'clock, on Wednesday morning, the south-west wind was driving the rain across the fields at a rapid rate, and gloomy were the prospects of the *Leominsterians* for a successful Fair. But the wind and the rain subsided, and by 8 o'clock the sun was glancing on the little pools, and twinkling merrily on the drops which hung tremblingly on the grass. The Common, in the middle of the town, was busy with the preparations going on; cattle, and swine, and poultry were coming in, and horses and colts were so elastic in the pure morning air, that they came nearer the true idea of *perpetual motion* than any thing we have yet seen.

Our first particular attention was given to the stock. There were, we think, some 40 pens, erected in the most substantial and neat manner, of sawed chestnut posts and rails, and all filled. The cattle were mostly of the common mixed breeds. We noticed a two years old heifer, native and Durham, which was very fine, the property of J. H. CARTER; three fine calves, by L. BURRAGE; a pair of native steers, by LUTHER B. CLARK, 3 years 5 months, and weighing 2370 pounds—destined to make a fine pair of cattle, if properly treated. A pair of two years old, by A. COBBURN, 1,850 pounds—handsome. A pen of cows, having excellent milking qualities apparent,

by SOLON CARTER, the President of the Association. A native cow, by DAVID HOWE, weight 1,195. Two cows, by P. H. W. LOW, native; also by JACOB COLLUM, S. F. SHATTUCK, and OLIVER HALL, which were fine looking animals, and making it evident that their owners were good judges of stock. A pair of fat oxen, by EPHRAIM BUSS, weight 4,000 pounds, were of fine proportions. In the afternoon there was a procession of horses, and some 40 or 50 pairs of working oxen, among which were fine specimens.

There was a small but good display of poultry—turkeys, ducks and varieties of cocks and hens. One motherly-looking Biddy, said, just as we were passing, "I am the mother of the mottled family at my left, what do you think of them?" Well, Dame Prattle, we think you have given us a progeny of many colors, but that "Thanksgiving" will be the richer for them, if you continue to feed them well.

There were some excellent swine. SILAS RICHARDSON, presented a breeding sow with nine pigs—the sow two years old, and the pigs fifteen weeks and averaging 98 lbs. each. Another by CHARLES F. CARTER, with seven pigs, all fine specimens. A fat hog by JOSEPH COZZENS, weight about 500 lbs. and a finely proportioned animal.

The *Drawing Match* was well and fairly contested—load for oxen, on a cart, 3,800 lbs.; for horses in horse-cart, 3000 lbs.; both horses and oxen gave evidence of much skill in training them.

A surprise awaited us in *Pomona Hall*, for which we were not prepared. In graceful array, were several tables the entire length of the hall, filled with apples, peaches, plums pears, cranberries, melons, squashes and all manner of vegetables, dried apples, together with the neat and tasteful handiwork of the ladies, and specimens of the mechanical skill and industry of the people of the town.

In the size, beauty and quantity of some of the varieties, especially of the Blue Pearmain and Russet Sweet, we had seen nothing like it before. And in the excellence of the whole fruit exhibition, we doubt whether there is another town in the commonwealth where there are no amateur fruit raisers, that can equal it. There were 1,080 specimens; 867 of apples, 72 of pears, 69 of peaches, 22 of plums, 17 of grapes, and 26 of quinces. The cranberries were presented by R. HAYNES; were from transplanted vines, and very large and fair.

The specimens of *combs* by GARDNER MORSE, EMERSON & PRISCOTT and G. A. WHITTEMORE, and of ladies' and gentlemen's *shoes* by MANSON & HAWS were of various styles and patterns, and of most rare workmanship.

This Exhibition, as a whole, was a model of the kind. At every point, were evidences of the practical skill of those who managed it; everything

moved at the moment assigned; there were no mistakes, no hurry or confusion, although the number of persons in attendance was quite large, and at the dinner more than usually sit down at the County Shows.

The exercises in the Town-hall, were an address by the agricultural Editor of the *Farmer*, remarks by Mr. EARLE, Editor of the *Spy*, Worcester, and the announcement of the awards.

Such associations are the germs from which will spring the improvements so much desired in agricultural affairs, and we wish them all that success they so eminently deserve.

For the New England Farmer.

IMPROVING SOILS BY SHADE.

MR. BROWN:—In the *Country Gentleman*, of July 6th, there appeared an article on a "New Method of Fertilizing Land," by Elihu Cross, of Rensselaer county, N. Y. Mr. Cross says, "I believe it is generally argued by farmers that shade tends to impoverish the soil; but, after a careful examination, I have come to the conclusion that shade makes land rich. Perhaps those opposed to this theory will say, 'If shade makes land rich, why does not the soil under very large trees become very fertile?' It seems to me that every intelligent husbandman might answer this question without much hesitation. The reason is this: the growth of the tree is constantly drawing the strength from the soil, and if the shade did not tend to enrich the land, the soil would soon be so much impoverished that the tree would die. If any person wishes to be convinced of the truth of this new theory, let him try an experiment on a small scale. Take a piece of poor ground, one rood square, and cover it over with brush two feet deep; let it remain covered in this manner four years, then remove the brush, and, if I am not very much mistaken, he will find that the soil has become rich, although no manure has been added. Let any man enter the forest, and examine the soil which has had growing timber consuming its fertilizing matter for centuries, and he will find that the soil is still very rich. Now I will ask how the fertility has been kept up, if the shade does not tend to fertilize the soil? I shall, doubtless, hear many say it has been kept up by the manure made of the leaves of the trees. I admit that the foliage tends to fertilize; but the quantity of matter returned to the soil in this way is so small in comparison to what is taken up by the growth of timber, it is evident there must be a greater source of fertilization, or the soil would long since have been exhausted. By shading land properly, the soil is made to undergo the putrefactive process, and is converted into a strong and durable manure. Ask farmers that raise flax and spread it upon their land, if the grass is any larger where the flax was spread than elsewhere, they will answer yes. You may ask them why it is larger; they will say the flax has enriched the land. Ask them how it has enriched the land, and I presume to say not more than one in ten can tell you," &c.

To this there is added an editorial note, which, in substance, says: "The simple process of shading

land cannot impart any fertility whatever, else the north side of a building would soon become enriched by the process. Neither can the shade of trees prove beneficial to the soil; and, although their growth is constantly withdrawing the strength from the soil, yet the annual extension of the roots, and their penetration into the soil, brings them successively into contact with fresh portions of earth, and their growth continues unchecked. But when a porous substance is placed upon the surface of the earth, sufficiently dense to prevent the evaporation of its moisture, and at the same time to admit the free passage of rain and air, two very important advantages are gained, viz: the preservation of the riches of the soil, and the addition to its fertility by the condensation of volatile manures, through the agency of rain, and by the gradual decomposition of the surface soil, through the action of air and water. If the earth is covered air tight, as, for example, by a solid stack of hay, or straw, resting directly upon it, no improvement follows, as would be the case if a pervious stratum merely was laid on its surface. For the same reason, the subsoil is never benefited by the shade of the upper soil, because it is totally excluded from air and moisture," &c.

Some five or six years ago, I gave out a few hints and ideas to the farmers, through the *Albany Cultivator*, in regard to improving waste lands. Such lands as steep hill sides, barren knolls, rocky ledges, and other waste places, by letting those points grow up to trees of the forest—naturally, if they would—if not, to plant them out, or sow the seed, by hand. When I first gave out this advice to farmers, I thought it good, and every year since has convinced me more and more of its importance, although at first I had no idea of offering any "new theory" for improving waste lands; still, if others feel disposed to give it that "name," I have no objections, not knowing whether I was before or behind others in first offering the improvement. Since that time, however, I have had the satisfaction of seeing other writers advocate the same cause, while some "agricultural orators" have held forth to "audiences" on improving waste lands by growing trees, which is all very well. The principles held forth in the theory offered by Mr. Cross I believe to be true; and, as he has done it in a very systematic way, I will make no attempts at improvement on that point. My attention was called to this subject a few years since, first, by observing a white oak tree growing on a barren, gravel knoll, upon my own land; and under this tree the soil was noticed to be pretty well swarded over to grass, while a few feet distance from the tree nothing but "fine finger vines and rattle ox-plants" could grow. The question then arose,—what caused the soil to become more productive, and sward over to grass under the trees? The falling leaves, under single or standard trees, would not be of much account as a fertilizer, as the wind would blow them away as they fell. The droppings of cattle under such trees, at times, might be of some importance during the warm season. But the main cause of productiveness I consider comes from shelter, and protection of the soil from the scalding and burning rays of the sun, together with the heavy washing and drenching rains of the season.

That there is a principle involved in the growth

of trees alone which imparts fertility to the soil I have not a doubt. But just how the process is brought about I cannot say at present. The comparison made by the editor, that if shade improved the soil then the soil on the north side of buildings would become rich, is not to my mind a case in point: because in case of the building it is "dead matter," while that of a tree, is a living acting principle, imparting fertility to the soil by its own reproduction. Then again, where the soil is completely protected from the sun and rain as under a building, after a number of years, "salts of nitre," or "saltpetre," in its crude state, will be formed, which is of itself a good fertilizer for soils. Every farmer knows that where a pile of old rails or boards lay upon the ground a year or two, the soil will be much enriched by it. So too a stack of hay, whether resting directly on the ground or raised a few inches from the surface, the soil will be improved, as we consider it rather a difficult matter to make the covering air-tight by a stack of hay or straw.

The subsoil, where it remains several inches below the surface, is of course dead and inert matter, and cannot be much improved, until it is opened by the surface and subsoil plow. Most or all of the cultivated grasses, together with the various kinds of grains, grow and mature well under shade; while the hood crops, such as corn and potatoes, with the various kinds of root crops, will not come to much, where the ground is pretty effectually shaded. Of course, the waste lands improved by growing young trees, will not be plowed, but remain in permanent pasture for cattle. On many of such lands, if the plow is kept out, the young trees will come in naturally. But where this is not the case they should be planted. The white oak, with most of the other oaks, together with the chestnut, will grow as well on a thin soil. While on a thin barren soil the white birch will grow successfully, so that there need be no difficulty in making a selection of trees suitable for the soil. These ideas lead me to make some remarks on a particular class of woodlands, more or less scattered on many farms throughout the country. These "woodlands," consist of thin scattering trees with very little or no underbrush or young sprouts and suckers; such lands are what would be called "oak openings," at the West. Most of these lands naturally grow nothing but a thin slippery wood-grass, which is not of much account for pasture or feed for cattle. But by feeding this grass down effectually with cattle, the better grasses will come in, and this, with sowing some of the grasses, such as timothy, red-top and clover, a good and permanent pasture may be obtained. I look upon such land where properly managed, as among the most valuable lauds for pasture on the farm. The permanent shelter which the growing trees afford for cattle through the season from hot suns and washing rains, is worthy the attention of every farmer. If under-brush should grow up, they should be cut out and kept down, but if the trees are out, then the improvement is done with, as the sprouts will not grow on such lands to any amount.

Yours truly,
Derby, Ct., Sept. 21, 1854.

L. DURAND.

EXPANDING THE CHEST.—Those in wealthy circumstances, or who pursue sedentary employment

within doors, generally use their lungs but very little, breathe but very little into the chest, and thus, independently of positions, contract a wretchedly narrow, small chest, and lay the foundation for the loss of health and beauty. All this can be perfectly obviated by a little attention to the manner of breathing. Recollect the lungs are like a bladder in their construction, and can be stretched open to double their ordinary size, with perfect immunity from consumption. The agent, and the only agent required, is the common air we breathe, supposing, however, that no obstacle exist, external to the chest, such as lacing, or tying it around with stays, or tight dress, or having shoulders lay upon it. On rising in the morning, place yourself in an erect posture, your chest thrown back, and shoulders entirely off the chest; now inhale or suck in all the air you can, so as to fill the chest to the very bottom of it, so that no more can be got in; now hold your breath and throw your arms off behind, holding in your breath as long as you please. Done in a cold room is much better, because the air is much denser, and will act more powerfully in expanding the chest. Exercising the chest in this manner, it will enlarge the capacity and size of the lungs.—*Common School Advocate.*

For the New England Farmer.

ANOTHER SPECIMEN OF FARMING.

MR. EDITOR:—Three years ago I bought the farm on which I now live, consisting of 100 acres, 15 of which are pond and marsh, consisting of muck and shell marl in great abundance, for which I paid \$1500. I keep 9 cows, besides my team. I raise what wheat, corn and vegetables I consume in my family, and some to sell; my sales of butter, pork and beef have averaged \$400 a year. I have done the work of my farm, with the help of a boy about 15 years old, and have paid \$50 for his services through the summer season. I raise most of every thing we need in the family, (which consists of my wife and two children,) except clothing and groceries, and I sell off grain and the avails of the poultry yard, sufficient to pay for them. I own my house and barns, filled with an abundance of the produce of my own acres, and at night sleep under my own roof, and if not a princely hired mansion, with carpets that are like velvet under our feet, yet it protects us from the inclemencies of even a Vermont winter; the rag carpeting answers all the purpose of one of finer texture, and what is better still, is the work of my own industrious wife, and then how sweet the pure, country air, from our verdant hills and mountains, instead of the pent up atmosphere from heaps of brick and mortar, and the cast-off rubbish of cities. Then we have a pure moral atmosphere that surrounds us, where we will not hear an oath once in a twelve month. Our children can skip and gambol in our own fields as innocently as the calves of our herd.

We have no piano, but we have what to us is a source of more real enjoyment, the music of lowing herds and bleating sheep, and the clarion voice of chanticleer, the elder, and all the younger ones of his train, and a full chorus of cackling hens to indicate the larder is to be kept replenished with eggs fresh and good; but I am wearying your patience with my "yarn," but it is no

fancy sketch, neither is the picture over-drawn, for the half is not told yet of the social, moral, and religious advantage of our position, and I could but think while reading your "City Mechanic's, No. 1," how many of his class might better their situation by coming to the country and "setting up" as farmers. I am in one of the best portions of Vermont, 18 miles from railroad, with a strong soil and good society; and farms can be bought for from 20 to 30 dollars per acre.

VERMONT.

Sept. 22, 1854.

For the New England Farmer.

IMPORTATION OF GUANO.

MR. EDITOR:—I have before me the Report of Mr. Riddle, from the Select Committee of the House of Representatives of the United States, upon the memorial of two thousand agriculturists of the State of Delaware, asking the action of this Government with respect to the importation of Guano from Peru. The memorial and report relate to a subject of immense importance to the farmers of this country, and contain much valuable information. The result of the whole is that Guano might be furnished in the ports of this country at from \$30 to \$35 per ton, paying at the same time a large revenue to the Peruvian Government. The contract heretofore existing between that Government and certain Anglo-Peruvian mercantile houses, which have made large advances to that government, and enjoyed the monopoly of the trade in Guano as security, will expire in 1855.

It is believed that some new and more favorable arrangement may be made by this government with that of Peru, and that no time should be lost in effecting it. I would suggest, that in furtherance of this object, so vital to the interests of this country, petitions should be prepared and numerously signed by the agriculturists of New England, and transmitted to Congress at the opening of the next session. The farmers of Delaware, Maryland and Eastern Virginia seem fully awake to the importance of the subject, and monopolize, through the Peruvian agent in Baltimore, a large portion of the Guano shipped to this country. The subject is equally important to the farmers of New England. Shall we not then unite with our Southern brethren in urging upon the government, immediate and strenuous efforts to secure the object. I send you a copy of the petition from Delaware, which may serve as the basis of a memorial from the farmers of New England, unless something better should be suggested.

MEMORIAL.

The Memorial of the undersigned citizens of Delaware respectfully represents—

That, Your memorialists are all engaged or directly interested in the ancient, honorable and indispensable pursuit of agriculture; that most of your memorialists have for many years been striving and toiling with earnest industry, and their almost skill in the effort to resuscitate a soil, which, though once generous and fruitful, had long been exhausted of its fertilities; that some six or eight years ago many of your memorialists had begun to despond of accomplishing their laudable enterprise, when the almost miraculous suc-

cess of experiments with Peruvian Guano upon their depleted soil, came to your memorialists as the harbinger of hope and future triumph; that although the price at which this valuable fertilizer came to the consumer, seemed from the first extravagant, yet it was sufferable in view of a reduction which it was believed would be soon effected, through the influence of a commercial competition; that so far, however, from being indulged in the realization of this hope, your memorialists have been compelled to pay, at almost every successive purchase of this manure, a price higher than the last, until at length, the demand has reached the exorbitant sum of *fifty-four dollars per ton*, and even at that rate, it can only be obtained in small parcels, as an especial favor, from the Peruvian agent; whilst your memorialists are informed and believe that there is enough at the Chincha Islands to supply the world for more than twenty generations. That your memorialists, from the best information they can obtain, believe that this evil springs not out of any normal law of trade, but is the oppressive exaction of an odious Anglo-Peruvian monopoly, which for mere caprice or mean selfishness, deals out to the American consumer, a stinted, but costly supply of an article, which if left to be regulated by the principles of a liberal commerce, might come in abundance, and at a moderate price.

Your memorialists are frank to admit, that no manure known to them is so well adapted to a speedy renovation of worn out lands as the Peruvian Guano. Yet it is equally true, that at the prices now demanded for it, the larger portion of the crop on which it is applied, is consumed in the expense of that application. So that the farmer, in part, derives but little benefit from it, save the mere gratification—if it can be one—of seeing his land improved at the expense of his fortune.

From this intolerable grievance imposed upon your memorialists, in common with their fellow-citizens of other States, by the monopoly before alluded to, your memorialists respectfully suggest that they know of no other means of deliverance, except the intervention of a government in whose enlightened liberality and justice they have unwavering confidence.

Your memorialists further suggest that they believe allegiance and protection to be correlative obligations. They trust that they belong to a class of citizens, than whom there are none more loyal. That class, too, embraces seven-eighths of the population of the Union; and yet, whilst other classes of their fellow-citizens have demanded and received the action and aid of their government, the farmers of this country have seldom or never before invoked the attention or assistance of the Executive, or of Congress, and it is only because they are oppressed "to that point beyond which forbearance ceases to be a virtue," that they at this time reluctantly venture to make known their complaint to a government, the blessing of whose protection and parental concern ought, "as the dews of heaven, to descend upon all classes alike."

I have omitted two paragraphs from the above memorial on account of its length. I would respectfully suggest that the annual meetings of the agricultural societies, which are about to occur, will afford suitable occasions for presenting this

subject to the farmers throughout the country, and of obtaining their signatures to a memorial to Congress.

Yours &c.,

JOSEPH REYNOLDS.

Concord, Sept. 12, 1854.

"LET ME IN."

BY FLORENCE PERCY.

When the summer evening's shadows
Velled the earth's calm bosom o'er,
Came a young child, faint and weary,
Tapping at a cottage door;
"Wandering through the winding wood-paths,
My worn feet too long have been,
Let me in, O, gentle mother,
Let me in!"

Years passed on,—his eager spirit
Gladly watched the flying hours;
"I will be a child no longer,
Finding bliss in birds and flowers;
I will seek the bands of pleasure,
I will join their merry din;
Let me in to joy and gladness,
Let me in!"

Years sped on,—yet vainly yearning,
Murmuring still the restless heart—
"I am tired of heartless folly,
Let the glittering cheat depart;
I have found in worldly pleasure
Nought to happiness akin,
Let me in to love's warm presence,
Let me in!"

Years flew on; a youth no longer,
Still he owned the restless heart;
"I am tired of love's soft durance,
Sweet-voiced syren, we must part;
I will gain a laurel chaplet,
And a world's applause will win;
Let me in to fame and glory,
Let me in!"

Years fled on;—the restless spirit
Never found the bliss it sought;
Answered hopes and granted blessings
Only new aspirations brought;
"I am tired of earth's vain glory,
I am tired of grief and sin,
Let me in to rest eternal,
Let me in!"

Thus the unquiet, yearning spirit,
Taunted by a vague unrest,
Knocks and calls at every gateway,
In a vain and fruitless quest;
Ever striving some new blessing,
Some new happiness to win,—
At some portal ever saying,
"Let me in!"

Portland Transcript.

☞ Sulphur will not mix with water at all,—Sugar mixes with it very readily. If the earth had been in this respect like sulphur, rain water would have run off as soon as it fell; there could have been no vegetation, and creeks and rivers would have overflowed many farms at every shower. Had the earth absorbed water as sugar does, we should have sank over our heads into the mud after every copious rain, buildings could only have been erected upon immense rocks, but without timber, for large vegetables could not have withstood the slightest wind. Indeed the earth would not have been habitable. But sulphur and sugar, yea, all things, are most wisely and exactly adapted to their respective uses. By whom?

SUBURBAN VISITS.

RESIDENCE OF MR. E. W. BULL, CONCORD, MASS., AUG. 5TH.

On the descending slope of a rather steep hill, on the southerly side of the old Concord road from Boston, and but little distant from the battle ground which has made this town so prominent in the annals of our country, is situated the residence of Mr. Bull, whose name has recently become familiar to cultivators as the originator of the Concord grape. His grounds occupy eight or ten acres, mostly a very thin sandy soil, and lay open to the south, with a fine prospect over many hundred acres of what was some years since a neglected meadow,—but now a fertile plain, covered with luxuriant grasses, waving grain, growing crops, and orchards of the finest fruit; beyond, from east to west, a finely wooded range of hills bound the view. All this improvement has been effected by the good judgment and industry of the owners of this land; among whom may be named, as setting the example to others, the late Capt. Moore, one of the best practical farmers in the country. His place, which nearly adjoins Mr. Bull's, is now carried on with the same zeal and energy by his son, Capt. J. B. Moore, who is a most successful fruit grower, a nurseryman to some extent, and, withal, a most thorough practical farmer.

Mr. Bull removed from Boston some fifteen or more years since, for the benefit of his health, and naturally extremely fond of horticultural pursuits, in which he had been an amateur participator even in the precincts of a small city garden; he carried with him some of the best kinds of our various fruits, and particularly the Isabella and Catawba grapes, then more rare than at present. These seemed to flourish on his warm sandy soil better than anything else, and to their culture he gave considerable attention; adding, from time to time, all the new sorts which were offered for sale, with a view to test their qualities, and among them the Diana.

But, unfortunately, neither the Isabella or Catawba could be relied upon for a crop, even in the most favorable seasons, and, disappointed in finding a really eatable fruit among the new kinds which he obtained from various sources, except the Diana, he thought the only way to procure what he most wanted—a hardy, early, and choice grape—was to attempt it through the seed; and this he set about at once. In a distant part of his garden a wild vine had sprung up, from some accidental seed thrown into the ground or dropped by birds, which, though similar to the common wild type in nearly every characteristic, produced a very sweet grape, ripening the last part of August. This struck him as a very favorable commencement, as earliness was the main thing to be gained. He moved it to the trellis near his Catawba and other vines, gave it good cultivation, gathered the crop, and planted the seeds; and it was the produce of these seeds that gave him, most fortunately, the Concord Grape. Such is the history of this seedling, which has already briefly been given by Mr. Bull himself, in his communication in our February number of the present volume, (p. 65.)

Our own account of this grape, with an engraving representing the size, form, and general appearance of the fruit, accompanied Mr. Bull's communication. We had been supplied, the last

autumn, with an abundance of ripe clusters from week to week, giving us every opportunity to test its qualities with the Isabella and Diana from our own grounds, and our opinion was formed after repeated trials of the fruit. The vine in its bearing state we had never seen, but knowing that whatever Mr. Bull might state in regard to it could be relied upon, we had no hesitation in recommending the Concord as in every respect a most superior grape.

But no new fruit has ever yet been introduced which has not found its defamers, and with the Concord grape there seems to have been uncommon pains used by those who never tasted it, to decry its excellence. A correspondent (anonymous, of course) of the *Horticulturist* stated that "the grape, either in bunch or berry, was not *one-third* as large as pictured" in the beautiful engraving which we gave of it. We happened to have had a cluster of the fruit painted last September, by our artist, Mr. Sharp, which was the exact size of the specimen, and it was so long we could not use it in the size of our page, but had to take a copy of a smaller bunch made previously by another artist. We only mention this here to show the absurdity of such statements, as we have seen bunches of the Isabella six inches long, and weighing one pound each.

The Concord grape vine, however, in a full bearing state, we had not seen, and our visit to Mr. Bull was made to examine for ourselves its growth, habit, vigor, and general characteristics. After what we have said of it already, our friends may be surprised when we say, the "half was not told." We were never more astonished ourselves. Growing on the thin and hungry sand, on the side of a steep declivity, we found the Concord in the most vigorous and beautiful condition; true, with some of the vines, and there are several from three to eight years old, Mr. Bull has tried to see what can be done with good treatment, which they have never before had; and therefore they have been well manured and watered, without which, with such a large crop upon them, they must have half perished in this dry summer. But there were vines with and without good management, on purpose to show what they would do under the most ordinary treatment, and all who may take the pains to visit Mr. Bull will see for themselves.

We found the old parent vine one mass of branches, foliage, and fruit; some of the leaves measured *thirteen inches in breadth*, and the clusters *seven and a half inches long and five and a half broad* across the shoulders; this, too, on the 8th of August, one month before maturity! Indeed, the clusters fully averaged in size those on vines of the Hamburg under glass. Two vines four years planted out, and running over a trellised arbor, had each about *sixty* bunches, several of them of the size just named. This was altogether too large a crop for vines of that age to bear; thirty clusters each, or sixty on both, would be an ample crop; but Mr. Bull intends that all may know what the vine will do; and that the grapes may be tasted freely, he declines to reduce the number, though it may greatly increase the size and beauty of the clusters. Not a speck of mildew nor rot has been seen, and the foliage appears to be so thick and vigorous, that even the thrip seems to keep shy of this variety, preferring

the tender foliage of the Isabella. Of the hardiness of the Concord we can only say, that, with the thermometer at 28 deg. *below* zero, last winter, not an inch of wood was injured; while the Isabella was killed in some parts of Concord nearly to the ground.

Mr. Bull has the Isabella in a most favorable situation on the southwesterly side of his house, trained to a trellis, slightly manured; yet here, —and the comparison for earliness and even quality should always be made from the same ground, —it never fully matures a crop. The Concord, everywhere, is growing on open trellises, or scrambling without support over the ground.

The successful issue of this first attempt has induced Mr. Bull to go largely into the growth of seedlings, and he has now upwards of 2,000 plants of various ages, from the sowing of this year, to those four years planted, and nearly in a bearing state. We examined the foliage of many of them, and cannot but think that some decidedly improved varieties will be produced. Much time and labor will be consumed in testing fully their qualities, but Mr. Bull intends to do so, and we doubt not a discerning public will reward him in proportion as his results are important.

We have said nothing about the Concord as a wine grape; we are not ourselves, neither is Mr. Bull, sufficiently acquainted with wine-making to form an opinion of what a real wine grape should be to supply this; but so far as he has tried, and good judges have tasted his wine, it would appear that the Concord will be the wine grape. We drank some of his wine made in 1852, which we thought exceedingly pleasant and high flavored; its only fault was its sweetness. Yet Mr. Bull put only four pounds of sugar to *twenty bottles* of the juice, which quantity was obtained from *one bushel* of the grapes; thus showing that it supplies that great desideratum for a wine grape, "possessing sugar in abundance." Another year, when his crop will be many bushels, if nothing happens, he intends to have a quantity of the wine made by some experienced man, in order to test its value for that purpose.

We need scarcely add, after what we have said, that Mr. Bull's grounds are of the lightest description of soil; so thin, indeed, that we have wondered almost that he should attempt to achieve great results. A warm exposure and a dry sub-soil are certainly important points in the growth of the grape; but when these are overbalanced by a soil so porous that it will scarcely hold the least moisture, it becomes a question whether a more fertile place, less favorably located, would not afford more satisfaction to the cultivator.

Mr. Bull has in contemplation many improvements upon his place, which, with some further account of his new seedling, we hope to notice again at some future day. —*Hovey's Magazine*.

☞ The Vermonters claim that their's is the *model* State. The *Rutland Herald* makes out its case in this wise:

"There is but one city in this State, and not one soldier. We have no theatres nor mobs. We have no police, and not a murder has been committed in this State within the last ten years. We have no museums, opera-houses, nor crystal palaces, but we have homes, genuine homes, that are the centre of the world to its inmates, for which the

father works, votes and talks—where the mother controls, educates, labors and loves—where she rears men, scholars and patriots.”

For the New England Farmer.

THE CURCULIO.

FRIEND BROWN:—Now that the curculio has done his work for the present season, it may not be out of place to give you my experience in the war I have had with that insect the past summer. I have tried some of the many remedies that have been recommended in the *Farmer*. Tree No. 1, I kept well dusted with air-slaked lime; No. 2, I put a hen and a brood of chickens under, and shook the tree almost every day; Nos. 3, 4 and 5, I syringed with a mixture of whale oil soap, in the proportion of 4 pounds of soap to 30 gallons of water. I syringed often enough to give the foliage of the tree the smell of soap. Now for the result of the different plans. Tree No. 1 is so full of fruit, that I had to support it with poles; No. 2 there is not a plum on; Nos. 3, 4 and 5, have in all about two dozen of good fruit. By this you will see that, after a fair trial, the air-slaked lime is the best.

The mode of applying it is as recommended by a correspondent in the *Farmer* last spring, viz: let your lime slake, and sift it through a flour sieve; take a piece of lace, make it in the form of a bag, and make fast to the end of a pole long enough to reach over the top of the tree; hold the pole with one hand, and strike the end of the pole with the other. In this way you can dust a tree all over in two or three minutes. I think this is the best way to save the plum from the curculio. I have been informed this summer that coal ashes will do equally as well as lime; if so, it does not cost so much; but I think the lime is the best. I send you this as my experience with the curculio the past summer, and, if it is worthy of your notice, you have it at your service.

Yours, BLYTHEWOOD.

Swampscott, Sept., 1854.

P. S. I am in hopes of hearing from others on this important subject, as no doubt many of your readers have been trying experiments with the plum.

CURIOSITY REPROVED.

The Persian Ambassador found himself so much annoyed, while in France, by the insatiable curiosity of the fair Parisians, who came in crowds to his residence, avowedly to “look at him,” that at last he revenged himself by the following little scheme:

On returning one day from a ride, and finding as usual his apartments crowded with ladies, he affected to be charmed by the sight of them; successively pointing to each with his finger, and speaking with earnestness to his interpreter, who he well knew would be closely questioned as to the purport of his remarks. Accordingly, the eldest of the ladies, who, in spite of her age, probably thought herself the most striking of the whole party, and whose curiosity was particularly excited, after his excellency had passed through the suite of rooms, coolly inquired what might have been the object of his examination.

“Madam,” replied the interpreter, “I dare

not inform you.” “But I wish particularly to know, sir.” “Indeed, madam, it is impossible.” “Nay, sir, this reserve is vexatious; I desire to know.” “O, since you insist, madam, know then, that His Excellency has been valuing you.” “Valuing us! how, sir?” “Yes, ladies; His Excellency, after the custom of his country, has been setting a price upon each of you.” “Well, that’s whimsical enough; and how much may that lady be worth, according to his estimation?” “A thousand crowns.” “And the other?” “Five hundred crowns.” “And that young lady with fair hair?” “Three hundred crowns.” “And that brunette?” “The same price.” “And that lady who is painted?” “Fifty crowns.” “And pray, what may I be worth, in the tariff of His Excellency’s good graces?” “O, madam, you really must excuse me; I beg—” “Come, come, no concealments.” “The prince merely said, as he passed you—” “Well, what did he say?” “He said, madam, that he did not know the small coin of this country.”

For the New England Farmer.

AVERAGE LONGEVITY—WAGES.

In reading the remarks of Hon. Amasa Walker, as quoted in last week’s number of the *Farmer*, in referring to the wages of farmers as compared with mechanics, it struck me that there might be some error in the data upon which they were founded. The statistics collected by the State on this subject are of great value, still they are only approximations. Much allowance is to be made for disturbing causes which could not enter into such tables. For instance the longevity of town paupers is much above that of any other class. But it would by no means be safe to expect a long life from becoming a pauper. So in farming, which is next in rank to the paupers. It is notorious that the healthiest in the family are selected for the farm, while if any one is predisposed to any disease likely to weaken his physical power, or have evidence of an enfeebled condition by his habits, he is placed in some of the pursuits that require less physical exertion. This makes farmers a body of picked men, physically, while the other pursuits take the second quality *physically*, and the refuse. This fact materially affects the bearing of the statistics on the healthiness of trades and professions. There is no doubt that farming is much the healthiest employment, but were the same body of men who compose the farmers put to either of the other pursuits, it might affect the results materially. The habits and employment of the shoemaker doubtless favor certain diseases, especially those connected with general debility,—yet how common for those with just such difficulties and predispositions to enter the shoe shop!

If this view of the matter be correct, then a change must be made in Mr. Walker’s conclusions respecting the proportion of wages due to the several pursuits. Strong and able-bodied men will, of course, receive higher wages in proportion to their number of years. It may, therefore, be questioned whether the conclusions which he has assumed are not incorrect, and whether the apparent inequality in wages be not on the wrong side.

I. M. NUTTING, M. D.

Orford, N. H., Sept. 12.

For the New England Farmer.

A TRIP UP THE MISSISSIPPI.

"Come, ladies," said our gallant Captain, in a voice that might have waked the very fishes from their slumbers in the deep,—“wake up! and say, for once, you’ve seen the sun rise, and I’ll soon show you the *Balize*.” So, without stopping to decide as to the relative merits of a sunrise and a sunset, we were soon on deck, ready for an observation. It was a glorious sight to see the globe of fire emerging gradually from the ocean, tinging the clouds with gorgeous hues, which were reflected in the watery mirror below. This was our last morning on the Atlantic, and it was one of interest. Our fellow-passengers, among whom we had found some pleasant acquaintances, were participating in the scene. Soon our party were to be widely separated. Some will enter the city in pursuit of wealth, where, perhaps, they may find a grave. Others will be in the country in quest of health. Vain hope, in one case at least. Alas! poor H., not even the climate of the sunny South can restore the bloom to thy pallid cheek. Never again will you hear the accents of love from the weeping mother, who bade you a reluctant adieu. “Sick, and a stranger”—sad fate! Some there are whose hearts are throbbing with emotion at the thought of being once more at home, where a joyous welcome awaits their coming. We are entering the *Balize*. “Observe the meeting of the waters of the Atlantic and Mississippi,” said Captain C. There was a distinct line marking the mingling of the salt and fresh water; not mingling, either, for the salt Atlantic and muddy Mississippi have no congeniality, and each will make no concessions. So, as old Ocean will be salt, and Mississippi will be fresh, and muddy into the bargain, it is quite wise and proper to keep up that line of distinction.

Soon the tow-boat *Yankee* came along, and, in company with two other ships, we were rapidly gliding past the marshes of cane and coarse grass. The scenery along the Mississippi is tame and monotonous. We ascended the river a considerable distance before observing any signs of cultivation. At last we saw the tall chimney of a sugar-house, and a neat hamlet of negro cabins, seeming like a little factory village. The banks of the river are fringed with cotton-wood trees, and now and then a live-oak, with its broad, spreading branches. Magnolia and other forest trees give a little variety to the landscape. From many of the trees is hung a flowing drapery of moss, which has an exceedingly graceful appearance, though its green color gives the forests an air of gloom, as if clad in mourning. One coming from a Northern latitude is struck with the changes in the vegetable world. Cane-brakes, palmetto, fields of sugar-cane and the orange grove, beautifying the tasteful home of the sugar-planter, reminds us that we are far from our home in the valley of the Connecticut. When within eight miles of New Orleans, the *Battle Ground* was pointed out to us. There is no monument to mark the spot; nothing to distinguish it from any other open, level field. Imagination pictured the scene of 1815, till we almost fancied we could see the fortification of cotton-bales, and the brave soldiers who won the day, and added a new lustre to the American arms.

As we come in sight of the city, we have a fine view of the harbor, a true crescent, which gives the name to the city. What a multitude of vessels from every quarter of the globe! The Upper and Lower Cotton-presses, Hospital, and other public buildings, are pointed out. At last our good ship is safely anchored. Kind farewells are exchanged, and the cabin is almost deserted. We were anxious to continue our trip up the river, and it was not long before we were on board the new and elegant steamer *Southern Belle*, bound for *Bayou Sara*. It was remarked that very few ladies were on board. Mr. S., the clerk, said “No, it was too early in the season to travel, particularly as there was still some yellow fever in the country!” He then described the following mournful scene: Two weeks since, no ladies graced the splendid saloon. A few male passengers walked listlessly up and down the long cabin, or lounged about the guards. The pale moonlight was streaming into the state-room, the most elegant and spacious on the boat, and cast its radiance on the features of a dying girl. She was young and beautiful, even in death. No father, mother, brother or sister, were beside her couch to whisper words of comfort, or let fall a tear of sorrow, as she passed through the “dark valley.” Not even a female friend was near. But she was not all alone. Her guardian was standing beside her, with looks of anxious affection. She pressed his hand, and essayed to speak words of gratitude for his tender, unwearying care. But the tongue refused utterance, and she gave him a look, a touching, melting look, and the strong man wept. The physician, too, was by. He had been in constant attendance during her illness; and all that science and skill could do to rescue her from the relentless destroyer, was done; but alas, in vain! The dreadful epidemic claimed another victim. The kind-hearted physician, accustomed as he was to scenes of suffering and misery, was not an unmoved spectator. He watched the waving life with emotion. Another fleeting hour, and the gentle spirit had passed away to that land where “there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain.” Poor Mary! her history is a sad one. She had just returned from a boarding-school in Massachusetts, where she had remained five years. She came South too early. The yellow fever made its appearance at her temporary home, and her guardian hastened to place her out of the reach of the epidemic. But it was too late. She was taken ill on the boat, and no skill could save her from her untimely fate.

We passed many sugar plantations, with elegant residences embosomed in groves of orange and myrtle, large sugar houses, and neat negro quarters. The country is more highly cultivated and more densely populated above New Orleans than farther South. The only place of interest we passed was Baton Rouge. The barracks, with the public grounds handsomely ornamented with trees, and the new State House, present a fine appearance from the river. We landed at Bayou Sara, and then bade adieu to the Mississippi.

M. E. S.

Jessamine Hill, Aug. 9th, 1854.

☞ In Egypt it does not rain, and there are no mountains to intercept the clouds, nor a broad

ocean on the west to yield copious moistures supplying water for dew. But the all-wise Creator and giver of every good and perfect gift, was at no loss to make that country what she once was—the granary of the world. Egypt is a level country—the Nile, which waters it, rises in the mountains of the Moon, as the rivers in South America do in the Andes, causing the Nile, to overflow its banks at a proper period every year. The rain lasts long enough, and the distance is just great enough to produce the flood two months after the rain has fallen.

For the New England Farmer.

REMARKS ABOUT RAISING HOPS.

Messrs. Editors:—I do not intend to boast of my knowledge at hop raising, not doubting that a number of my townsmen could give your interrogator of Kennebunk better directions in the process of raising and curing hops than I can. Hop raising was the most profitable branch of my father's farming business; from 1792 to 1797, while a lad, I worked on a hop plantation, and such information as I can give after so long a period of having my attention entirely directed to other business, I freely communicate to our Kennebunk friend. I have no practical knowledge of raising hops from the seed. In a hill of hops over one year old, will be found two kinds of roots,—the tap or ground root, which penetrates deep into the earth, and is the main support of the plant, (this root does not vegetate, and therefore is unfit for seed,) and the surface roots, which lie nigher the top of the hill; these roots, have germs which when planted, produce the vine; they must be cut four inches or more, long, with eye-shoots visible upon them, and some 2, 3 or 4 pieces put in a hill.

The way I was taught to raise hops, was in this wise; first plow a good piece of land; manure well by spreading or afterward in the hill; mark the ground, 3 ft. 6 or 9 inches apart, in squares, and at planting time put in corn or potatoes in every second row, and hop roots in every second hill in the other row, which will give the first year the three hills of corn or potatoes to one of hops; the hop vines will not be in a hurry to come up, and when they do, will appear rather slender the first season, and will require good attention by hoeing well three times. The next thing to be attended to is to have the poles ready for use; if birch, they will last longer when cut in August or September, than when cut in the spring, as a matter of course; all kinds of poles will be cut in fall or winter by an economist. The poles ought to be from 12 to 20 feet long, and if the bark is shaved off from them all, they will be more durable. The second year before the hops sprout, one or more shovels full of good compost manure must be thrown upon every hill of hops which will be the most direct means to obtain a blessing. Then set two or more poles to a hill according to the richness of the soil and number of shooting vines; the next thing will be to select two of the best vines to each pole, when long enough, and wind them around the poles, in the direction of the sun's course, and confine them with shreds of soft yarn; after all is ready, run the horse-plow between the rows, four furrows, turning them toward the hills, then hoe the top hills and cover up all the superfluous vines that

they may not run up the pole to choke and injure those already going up, as two vines are a plenty for one pole. Hops, while growing, want a great deal of looking to; high winds blow the vines from the poles, which must be replaced that they may climb to the end of their journey.

But Mr. Editor, if your Kennebunk correspondent will jump into a car on the Maine R. R., and ride to Wilmington, Mass., and call on Mr. Abiel or Eldad Carter, either of them could communicate more practical information in a half day on the subject of raising hops, than I could communicate in a week; they have probably kept up with the improvements of the times, having steadily pursued the business from year to year for many years; there he could see the kiln and the press, and have "ocular demonstration," which would be worth more to him than all the scribblings I could send into market. S. BROWN.

Wilmington, Sept. 20, 1854.

For the New England Farmer.

LIGHTNING RODS ARE NOT HUMBUGS.

Messrs. Editors:—I noticed in your paper of the 26th of August, an article referring to a previous article, which I did not see, and making the inquiry, Are lightning rods humbugs! the writer of which appears to be in much doubt, and expresses a very earnest desire to have some one fully acquainted with the subject, and in no way connected with the manufacture of lightning rods, to publish his knowledge in the *Farmer*, in order that your thousands of readers may receive the benefit of such knowledge, and be able to protect their buildings from lightning, without fear of being humbugged. Two writers in the *Farmer* of Sept. 23d expressed their views, and repeated a few long-established facts in regard to the termination of the rod in the ground, the utility of isolated fastenings, the doctrines of Franklin, &c.; but none have yet given any rule in detail, or answered the question at issue. The desire, on the part of your correspondent, to receive the much coveted information from a person not engaged in the business, is very natural; but to find one who is not and never has been engaged in the business, competent to explain the laws of the fluid, together with the *modus operandi* of erecting efficient conductors, would be a little contrary to nature.

I have studied the science of electricity some, and was engaged in manufacturing and erecting lightning rods three years previous to 1841. I am neither directly nor indirectly interested in the business at the present time, therefore I may presume to tell what I do know, and testify to that which I have seen, without fear of being called a humbug. I say that lightning rods, when properly constructed, are not only not humbugs, but will afford perfect protection to any building, and at an expense not exceeding the means of the occupant of the most humble dwelling. The laws of electricity are as regular and as easily understood as any other natural law. Any person, with a small electrical machine and leyden jar, can demonstrate the *one great principle* that electricity will follow a good conductor any distance round, provided it finally terminates near where it is destined to go, rather than pass a very short distance through the air,

or over bad conductors; therefore, I think any person capable of understanding the foregoing theory, will readily see the reasonableness of having rods extend to all parts of the house, or building of any kind. The idea that the rod must run up high in order to attract the lightning, is one of the humbugs. It does no such thing; all that is necessary is to place the rods round on the building, to conduct the lightning off when it comes. No one supposes that an iron house would ever be injured by the most powerful discharge of electricity. Why, then, not allow the possibility of arranging iron rods on the outside of wood, brick, or stone buildings, so as effectually to secure them against all damage by lightning?

I will give as good a general description of the manner rods should be put up as time and space will permit, and then, if individuals wishing to erect them, who have not perfect confidence in their own understanding, will show me the form and situation of their buildings, I shall be very happy, at any time, to give them all the information in my power. The common nail-rod, $\frac{1}{2}$ of an inch square, is the most convenient and best iron that can be used for the purpose. Let these rods be placed along the ridgepole, down to the eaves at each corner, on all the chimneys and prominent parts of the roof, (such as Lutheran windows,) with a sharp point on each projection, from one to four feet high, as you like best; and if the building is large, let the rod extend to the ground at each corner; let one terminus be in the sink drain, another in the well, and have the others drove deep enough to reach moist earth. Be sure and have all parts of the rod connected permanently, and have sharp points project at intervals of four or six feet the whole length of the rod; the points may be gold, silver, copper or iron, a sharp iron point being perfectly safe under all circumstances. The rod may be secured in its place with an iron staple or screw, of sufficient length to hold it firmly, without any fear of conducting the fluid into the building, as many suppose it would.

I have erected many of this description of rod in various parts of the country—in Charlestown, Medford, Brighton, Cambridge, Brookline, Dorchester, Uxbridge, Westboro', Mendon, Slatersville, Providence, B. I., Albany, New York City, Brooklyn, N. Y., Newark, N. J., Hartford, Ct., and many other places, and have never yet heard of the first instance wherein they have failed to afford the desired protection.

S. D. QUIMBY.

Winchester, Sept., 1854.

For the New England Farmer.

TEWKSBURY AND STATE ALMS-HOUSE.

Messrs. Editors:—In reply to my anonymous critic, in *Farmer* of 16th, I can state on reliable authority that the land in the western part of Tewksbury, and in some other locations of the town, will compare with the good, if not the best land in the County of Middlesex, and that there are a good proportion of thriving and comparatively rich farmers there, notwithstanding "barren in the extreme;" and that the water in one of the Almshouse wells has not been less than 18

feet deep at any period of the drought, and that I can state positively, that I intimated not a word about "wells to be dug" but simply remarked that the superintendent informed me "that they had a good supply of water at present, but were improving the wells, to have it more plentiful, and of better quality". Now, Mr. Editor, I like to see gentlemen make fair statements, and not put too much confidence in hearsay stories, and have courage enough to put their names to pieces of doubtful veracity, and also advise Mr. Anonymous to go to Tewksbury and look out for himself.

Wilmington, Sept. 22, 1854. S. BROWN.

For the New England Farmer.

MONTHLY FARMER FOR SEPTEMBER.

As I seldom see any other monthly agricultural publication than the *Farmer*, I thought while in the city recently, and passing the office of one of the other Boston monthlies, that I would purchase a copy and see if the "new brooms" sweep cleaner than the old ones. All subscribers to the monthly *Farmer* have the right, I suppose, of comparing it with any other similar paper that may be started, not only to see what others are about, but also for the purpose of determining whether they can better get their money's worth by taking some other publication in its stead.

The number which I thus procured is edited with spirit and ability, has a clear print and illustrative cuts, and is sold at the same price that we pay for the *Farmer*. By a somewhat careful comparison of the two publications, I find that the *Farmer* furnishes nearly twice as much reading matter as the other; that the Table of Contents in the *Farmer* gives the headings of seventy-six articles, and that of the other paper, twenty-five; and that while the *Farmer* has thirty distinct "communications," furnished by writers in five different States, the other has perhaps ten—so little distinction being made between editorials, communications, and selections, that it is difficult to determine to which department some articles belong—and for ought that appears to the contrary, all but two of them may have been written in the city of Boston.

The MONTHLY FARMER, therefore, has the advantage, decidedly, in the amount and variety of its contents. Whether it is ahead of all other agricultural monthlies in this respect, I am unable to say, as I have seen specimens of but few of them; but it certainly is of all that I have seen. The great "freedom of speech" which is not only tolerated, but encouraged by the editor, induces "many men of many minds" to cast in their mites of experience and thought, with the assurance of a cordial welcome, whether they happen to agree or disagree with the practice of anybody else, or with the theories of professors and amateurs. Indeed, even the boys have found a spokesman in the number before us. "A Young Farmer" speaks in behalf of his class, on "Training youth to a wrong Occupation." He complains that the tastes and inclinations of children in respect to a choice of employment are not more generally consulted, and seriously charges parents with regarding "their own present interest," rather than "their children's future welfare!" Similar charges against parents are so common in the "literature" which is provided for our children, that

perhaps we should not be surprised to find them reiterated in the *FARMER*, yet to him who feels conscious that the welfare of his children is the only "interest" he has in this world, the imputation of such sordid indifference to their happiness, is rather unpleasant. But it is perhaps useless to attempt to show the injustice of this opinion, until these much-abused children shall themselves become parents, and their own self-neglecting care and solicitude for their offspring be judged as they now judge. As to the inclination and taste of youth, I will say to the "Young Farmer," that my experience and observation force upon me the conviction that they are very poor guides. My own "inclinations and tastes," when a boy, were mere whims; incited, formed, and changed by transient circumstances, or passing events. At one time my whole mind would be fixed upon one pursuit; at another time upon some other occupation. And if such has not already been the experience of "Young Farmer," it is probably because he is younger than I suppose him to be. Let any one watch the effect that is produced upon "the taste and inclination" of youth, as a neighborhood or village shall be successively visited by a circus, a theatre, an astrologer, a military and fire company. Will not the changing "tastes" of the young be manifested by standing upon their heads, by spouting Shakspeare, by swallowing jack-knives, by playing soldier and firemen, changing with the successive shows, very much as the hue of the chameleon is said to vary with that he feeds on! I hope the brief article by "A Young Farmer," will direct attention to the subject of parental responsibility. "The rights of women," and the rights of children, are not the only newly-discovered rights in the world. The "rights" of fathers to allow their sons and daughters to follow their own tastes and inclinations, and to "restrain them not," would seem to be among the very comfortable privileges of modern times.

In the scientific department are two articles on "Analysis of Soils," one by a student of the famous Liebig, the other by the principal of a school in New Hampshire, in which agricultural science is taught. No one interested in the analysis question will fail to read these articles. Two articles on "Feeding Animals" are copied from *Johnson*. Two or three on "Lightning Rods," one on the question, "When should crops be gathered?" and one on the "Use and influence of Light."

The high price of farm labor the past season, has given increased interest to the subject of labor-saving machinery; and the *FARMER* for September meets this interest with an account of "A New Windmill"—"Machinery in Farming"—"Hickok's Patent Improved Cider-Mill," and "Agricultural Implements."

But without attempting any further classification of the contents of this number, we may be permitted to say that Mr. Brown's picture of "Esq. Sidewell, the Theoretic Farmer," is a "beauty," and true to life; for how many of us, "while preaching theories to others, neglect the practical application of them to our own affairs." Mr. Noble answers, in a few lines, very practically, the query, "How to use Meadow Muck?" Hints by Dr. Dodd on the "Management of the Horse," particularly for the prevention of diseased

or tender feet, with an article on "Botts." An interesting account of the operations of "American Farmers in Palestine," who are cultivating the soil on the very site of one of the gardens of Solomon! Where went the Yankee turn up next? Two or three articles on "Wheat-Growing in Massachusetts;" one on "Farming a hundred years ago;" two on building "Ice Houses;" the old "Chess or Cheat" question opened; several articles on fruit—"The Summer Rose," and "Early Strawberry" apples figured and described,—are a few of the many articles in this number of the *FARMER*, that are well worth special notice.

A READER.

Winchester, Sept., 1854.

THE HARVEST HYMN.

God of the rolling year! to Thee
Our song shall rise, whose bounty pours,
In many a goodly gift, with free
And liberal hand, our autumn stores;
No firstlings of our flock we slay,
No soaring clouds of incense rise,
But on thy hallowed shrine we lay
Our grateful hearts in sacrifice.

Borne on thy breath, the lap of spring
Was heaped with many a blooming flower;
And smiling summer joyed to bring
The sunshine and the gentle shower;
And autumn's rich luxuriance now,
The ripening seed, the bursting shell,
The golden sheaf and laden bough,
The fulness of thy bounty tell.

No menial throng, in princely dome,
Here wait a titled lord's behest,
But many a fair and peaceful home
Hath won thy peaceful dove a guest;
No groves or palm our fields adorn,
No myrtle shades or orange bowers,
But rustling meads of golden corn,
And fields of waving grain, are ours.

Safe in thy care the landscape o'er,
Our flocks and herds securely stray;
No tyrant master claims our store,
No ruthless robber rends away;
No fierce volcano's withering shower,
No fell simoon, with poisonous breath,
Nor burning suns, with baleful power,
Awake the fiery plagues of death.

And here shall rise our song to Thee,
Where lengthened vale and pastures lie,
And streams go singing wild and free,
Beneath a blue and smiling sky;
Where ne'er was reared a mortal throne
Where crowned oppressors never od
Here, at the throne of Heaven alone,
Shall man in reverence bow to God.

HIGH PRICE OF MILK.

Some complaint is made of the recent rise in the price of milk from five to six cents per quart. Whatever reason there may be for complaint in the prices of wood, coal, potatoes and flour—and we think there is good reason—there is none for that of milk. The farmers have generally been losing in supplying milk for more than a twelve, month past—we mean those in the country who sell to milkmen, and they have been compelled to demand more for it or fail to supply it. The purchaser from the farmer now pays six cents a

can of *eight* quarts more than he did last year, and those who convey it about charge *eight* cents a can more, and this makes it cost the consumer *six and a quarter* cents per quart, instead of five cents as last year. At the present prices of hay and grain, this is only a fair price for good milk.

EXTRACTS AND REPLIES.

WHAT SHALL I DO WITH MY OLD FIELD?

MR. EDITOR:—I have a piece of land that has been mowed for upwards of forty years; it is getting badly run out; there are brakes and wild grass in abundance. Two years ago, I spread on about 100 loads of barn manure; it did well the first year, but does not seem to last. I have been advised to put on lime to kill out the brakes, and bring it into English hay; any information from you or any of your subscribers, concerning how to manage it, will be gratefully received.

Rochester, 1854.

C. B. C.

REMARKS.—Plow deep, manure highly, hoe thoroughly, for a year or two, and lay it down again, if you wish it, in grass. No other course will prove profitable.

THE CONCORD GRAPE.

MR. BROWN:—In your paper of the 23d of September, I noticed an account of the Concord grape raised by Mr. E. W. Bull, of Concord. It being highly recommended, I would like to inquire if it is of such a nature as to thrive well in Maine; and also, what color and yield are, and oblige

A READER.

REMARKS.—The Concord Grape has not been tested, we suppose, in Maine, but we think may be grown there successfully, as it ripens early in September here. The general appearance of the grape is much like that of the Isabella.

WHAT AGRICULTURAL BOOKS TO READ.

MR. EDITOR:—I am a mechanic, but design at some future day to engage in farming. I have a *very little* practical knowledge of the business, but am anxious before engaging in it, as my occupation, to get a scientific knowledge thereof. I have five dollars that I wish to expend for books on agriculture; will you please name in your paper, the titles of a few works that can be purchased for about that sum, which you think best calculated for one in my situation.

M. B. B.

REMARKS.—Certainly, with much pleasure, and will also say that you have started exactly at the right point. For the first book, get the "Farmer's and Planter's Encyclopedia of Rural Affairs, &c.," which will cost three and a half or four dollars, at Jewett's, 117 Washington Street, and for the second, "Johnston's Elements of Agricultural Chemistry and Geology," and when you are well-versed in their contents, you will probably be qualified to manage a farm, so far as theoretical knowledge will go.

WHAT IS THE BEST MANURE FOR A GARDEN?

MR. BROWN:—I wish to inquire through the

columns of your valuable paper, what is the best manure for a garden? I am preparing a new spot and wish for a good vegetable garden; the soil bears a little upon a gravelly one. I have a plenty of manure made by muck being drawn in the yard one year ago. Is it preferred to stable manure? Should it be plowed this fall?

A NORTHERN SUBSCRIBER.

Canaan, Vt., 1854.

REMARKS.—Apply such manure as you describe, plentifully, this fall, and plow it in, no matter how green it is if plowed in soon. Plow again in the spring and pulverise finely. Fresh droppings plowed under in the fall, are excellent, as there are few or no seeds of weeds among them.

CRANBERRIES ON HIGH LAND.

MR. ELIAS NEEDHAM, of West Danvers, has shown us some cranberries grown on high land, which are of good size, and which, he says, he produces, with good success, having raised some one or two hundred bushels a year and selling them for \$3 and \$4 a bushel. We have heard his experiments favorably spoken of by his neighbors, and can have no doubt but that he finds an ample reward in the crops for all cost and labor. Here, then, is the example; why cannot others copy it, and produce this wholesome and palatable food, so that it shall become common on every table?

LARGE APPLES.

D. H. FAIRBANKS, Harvard, Mass., two apples, weighing, together, 24 pounds, and measuring 12 and 13 inches round them. They belong undoubtedly to the Pippin varieties.

SEEDLING PEACHES.

From RUFUS ROBBINS, Abington, Mass. Those peaches were very good. Seedling peach trees are often more hardy than those budded, and when we find a good one, it is best to preserve it.

KETCHUM'S MOWING MACHINE.

MR. EDITOR:—As many who have bought mowing machines this season, have given the result of their experience in using them, I am inclined to follow their lead. I received of Messrs. Ruggles, Nourse, Mason & Co., one of Ketchum's Patent Machines on the 7th of July, and immediately put it in operation with a pair of horses weighing less than 1000 lbs. each, and used it almost daily in all kinds of grass, from the shortest May-grass, to the tallest herds-grass, till I had mowed about thirty acres; (all I had suitable to mow with a machine, and some of that quite uneven, but free from stone;) doing the work to my entire satisfaction. The machine is in perfect order at this time, and it has not had the first farthing spent upon it in repairs. The only time it made me feel unpleasantly, was on the last day I used it; I then felt like "weeping" because I had no more fields to conquer.

HIRAM W. JONES.

Dover, Sept. 25, 1854.

BUTTER—FOUR QUARTS MILK TO THE POUND.

MR. BROWN:—I failed in sending you the yield of butter my cow made in June. I will now send

you a specimen and the weight of what was taken from four quarts of milk. It was strained in one dish and remained thirty-six hours, then skimmed and stirred soon after, and the butter weighed—one pound. My cow is native breed, and quite small, and has nothing but common keeping; she gives eight quarts of milk a day. I think she calved the 24th day of last January.

A. BROWN.

East Abington, Sept. 15, 1854.

REMARKS.—Nothing could well be nicer in appearance, or finer in flavor, than the butter spoken of above. We have no reason to doubt the correctness of the statement.

CROPS IN MAINE.

MR. EDITOR:—We have had a fine rain, the first for precisely three months that has wet the ground down over two inches; there fell about four inches of water (as near as I could judge by its falling in a box) on Friday night and through Saturday. The drought has been very severe, but still I think the crops in this section will be far better than has been anticipated. Hay is an average crop, and corn will be middling; potatoes very light and all garden vegetables. All cereal grains are an average. CHARLES WEBSTER.

Kennebunk, Me., 1854.

CROPS IN CONCORD, MASS.

Our potatoes are reviving, and promising a fair crop. The root crops are doing exceedingly well. The moral of the dry spell is to plow deep, and cultivate moist land.

W. D. B.

ROCKINGHAM FAIR AT EXETER.

This young but vigorous Society, held its second annual Exhibition at Exeter, N. H., Sept 14 and 15. The following account is from the *Portsmouth Journal*.

The Fair opened on Thursday morning with every promise of fair weather, and of a display highly creditable to the citizens of Rockingham county. The trains upon the B. & M. road were long and well-filled, pouring in large crowds to the Exhibition, and private carriages followed each other into the town from the neighborhood in quick succession. The up train from Dover &c. in the forenoon consisted of nine cars; the streets in the vicinity of the stables were closely lined with the carriages from abroad, and the town was overflowing with visitors. Among these was Tiger Engine No 2 from Dover, which was received with honors by the Niagara Co. of Exeter. The parade of the two companies during the day evinced good drilling, and had the Dover Co. been a little less noisy in the cars on their return in the evening, their reputation would have been unscathed by their visit to the "Show." Portsmouth was well represented among the visitors, though it is to be regretted in the displays of the day she made but an atom where she should have shone like a brilliant. Stratham, Greenland, Rye, Hampton, North Hampton, Hampton Falls, Seabrook, Kensington, Exeter, Chester, Brentwood, Durham, Epping, Lee, Kingston and some other places, took active part in preparations for the occasion. The display of Hampton Falls was particularly deserving of at-

tention. The entrance of this delegation was a triumphal one, similar to that of last year. The ladies of the town, to the number of twenty or thirty, rode in their decorated car, drawn by 20 yoke of oxen. The oxen had each a ribbon streamer flying upon either horn; the car was 22 feet long, 11 feet wide and 15 feet high, heavily and tastefully covered with evergreen and flowers; it was regularly thatched with straw and corniced with stocks of corn—flags were flying from the roof; the words "Hampton Falls Farmers' Club," were traced on the rear end of the cart in evergreen. The whole formed a splendid specimen of rural architecture.

The display of cattle was very good. Prominent was one yoke, weighing 40 cwt., from Geo. O. Hilton, Esq., of Newmarket. A pair of black horses, raised by Oliver Brown of North Hampton, attracted much attention—well matched—remarkably quick. The best cow for milk on exhibition was owned by John Lowe, Esq., of Exeter, which was the only animal of part Durham stock. There were several noble animals of Devon blood, bulls and heifers.

The display of swine was good, but confined principally to the Suffolk breed, and crosses of Suffolk and native.

The Fair in the Court-House was very attractive, and displayed with excellent taste, doing much credit to the ladies of Exeter and others who were concerned in fitting up for the occasion. The rooms, both above and below, were well stocked with the gifts of Pomona, Ceres and Flora, which formed a display surpassingly excellent, considering the drought of the season and the fears which have been expressed for the prospective condition of the crops. The peach crop, it is well known, is almost an entire failure; the display was much less than that of former seasons, yet some splendid specimens were on exhibition; among these, and particularly inviting, was a lot of twenty-nine different varieties from the farm of Mr. A. Littlefield of Greenland—the largest girth nearly eight inches.

With few exceptions, the exhibition of Pears was very meagre. No good reason can be given why as fine specimens of pears cannot be produced in Rockingham county as in any other section of New England.

More abundant were the specimens of apples; with these the tables were heavily laden. There were a few grapes; but only a single specimen of plums.

The Plowing Match, notwithstanding the untimely rain in the latter part of the day, took place according to appointment. Old times and new were represented, showing a picture of the progress which has been made in this simple branch of husbandry in the past twenty years, which is almost incredible. The result of the match, is highly creditable to those concerned in it.

The arrangements for the occasion were well made; and the gentlemanly attention of Henry F. French, Esq. the President of the Society, added much to the accommodation of contributors and visitors.

Dr. Eddy, of North Bridgewater, has received Letters Patent for an Improvement in the construction of Bee-Hives.

LOVE'S FAIRY RING.

BY GERALD MASSEY.

While Titans war with social Jove,
My own sweet wife and I
We make Elysium in our love,
And let the world go by!

Oh, never hearts beat half so light
With crowned queen or king!
Oh, never world was half so bright
As in our fairy ring,

Dear love!

Our hallowed fairy ring.

Our world of empire is not large,
But priceless wealth it holds;
A little heaven links marge to marge,
But what rich realms it folds!

And 'escaping from all other strife,
Sits love with folded wing,
A brood o'er dearer life in life,
Within our fairy ring,

Dear love!

Our hallowed fairy ring.

Thou leanest thy true heart on mine,
And bravely bearest up!
By mingling Love's most precious wine
In life's most bitter cup!

And evermore the circling hours
New gifts of glory bring;
We live and love like happy flowers
All in our fairy ring,

Dear love!

Our hallowed fairy ring.

We've known a many sorrows, sweet!

We've wept a many tears,
And often trod with trembling feet
Our pilgrimage of years.

But when our sky grew dark and wild,
All closer did we cling;

Clouds broke to beauty as you smiled,
Peace crowned our fairy ring,

Dear love!

Our hallowed fairy ring.

Away grim lords of murderdom;

Away, oh Hate and Strife!

Hence revelers, reeling drunken from
Your feast of human life!

Heaven shield our little Goshen round
From ills that with them spring,
And never be their footprints found
Within our fairy ring,

Dear love!

Our hallowed fairy ring.

For the New England Farmer.

THE CONCORD GRAPE.

At a meeting of the Concord Farmers' Club, Oct. 5th, the following gentlemen were appointed a Committee, to examine and test the Concord Grape and make report to the Club. Joseph Reynolds, W. W. Wheelton, S. G. Wheeler, Wm. D. Brown, James P. Brown. The Committee made the report which I now send you.

The Committee upon the Concord Grape report that they have attended to the agreeable duty assigned to them, and that in their opinion the Concord grape possesses, in a high degree, the essential properties of a perfect grape, beauty of form and color, richness of fragrance and flavor, and abundant juiciness. Its skin is thin and remarkably free from astringency. The vine is a free grower, an abundant bearer, and very hardy in its habits, and what renders it peculiarly valu-

able, in our New England climate, is the fact that it ripens two or three weeks earlier than any other good variety with which they are acquainted. They congratulate Mr. Bull, the producer of this seedling grape, upon the success which has resulted from his patience, perseverance and skill, and they congratulate the horticulturists of the country upon the addition of so fine a variety to our native grapes. Your Committee have partaken of more than one bottle of wine made from this grape, but they assure the members of the Club that they do not speak under the influence of wine when they say that they know of no other grape in this country, so well adapted to the production of wine, as the Concord grape.

In behalf of the Committee,

JOSEPH REYNOLDS, Chairman.

EXTRACTS AND REPLIES.

FINE PEARS.

FRIEND BROWN:—I send you a few specimens of pears, among which you will find the *Lawrence*. I have cultivated and paid considerable attention to this variety for years, and fully concur with Mr. Walker and other gentlemen of the Pomological Congress, who spoke so highly of its merits. Too much cannot be said in its praise. It never shrivels like most late pears, but may be picked and put away with as little care as a Baldwin apple—besides it is a good grower, an excellent bearer, and ripens its wood early, which guards it from the sap blight to which many of our finest varieties are often subject. *Nouveau Poiteau*, a variety admirably adapted to the quince, on which it grows with great vigor, forming one of the finest pyramids and equalling in growth and beauty the Glout Moreau. Size large, quality uniformly excellent. One of the greatest acquisitions for the amateur, if not for the orchard, which has been introduced for years. You will also find a specimen of the *Beurre Clairgeau*, grown on a dwarf tree, which was planted in April. This fruit gives great promise. Its precocity and great productiveness, together with its splendid appearance, will, I think, make it a general favorite.

ANDREW LACKY.

Marblehead, Oct. 4, 1854.

REMARKS.—The pears mentioned above are beautiful specimens. The *Beurre Clairgeau*, in particular, is one of the finest appearing pears we have ever seen. Their flavor has not been tested, as they are not yet in eating condition. We regard friend LACKY's recommendation of pears as worthy of full confidence.

REMOVING LARGE TREES.

MR. EDITOR:—The writer is desirous of obtaining some knowledge of the present mode of transplanting or moving evergreen or other ornamental trees, say size 20 or 30 feet high and from 8 to 10 inches diameter. The object of inquiry is how they are lifted from their beds, the distance from the trunk for a given diameter, and height of the tree they should be dug round and the thickness of earth that would be necessary to preserve life. Also can they be taken up with safety in the fall, and if so, how late. Should you have had no practical experience in the above operations, per-

haps some of your numerous readers may be well posted up in the business from actual operations and will be kind enough to give us the desired information, and oblige a seeker after
Portsmouth, 1854. KNOWLEDGE.

REMARKS.—We have transplanted elms as large as 13 inches in diameter, and from 20 to 30 feet in height, and white pines of about the same proportions with perfect success. These trees were dug about and under them in November, and propped up with pieces of waste timber cut off in framing a barn. The ball of earth about the largest tree was 8 feet in diameter and 2 feet in depth. By the middle of January this ball was frozen solid, and then the stem being protected by joists lashed to it, a pulley was attached some 15 feet from the ground and the tree canted over by horse power. A stout ox sled was then placed under it, the tree and earth canted back, and the whole drawn off—but it was a load for 12 stout oxen. A large stone drag, or two, confined to each other, would probably be better than a sled. Where large wheels, some 8 or 10 feet in diameter could be had, we think the work might be done easier and cheaper. The quantity and situation of the roots must govern you in the breadth of earth to be left. Begin off from the stem, 3, 4, or 5 feet, and if only a few roots are found, you can work up freely towards the tree, and this will give you a broad trench to work in, while getting out the earth immediately under the tree. It should be remembered that when the tree is removed all the earth about it will be frozen and that none of it shall be left in the way. The side of the hole where the tree is to come out should be gradually pared away so as to leave a free passage. The hole which is to receive the tree must be dug beforehand, and should be 10 or 15 inches larger all round than the ball of earth it is to receive. Old loam compost must be worked under the ball and filled in to this space.

For the New England Farmer.

A MAN KILLED BY LIGHTNING.

MR. BROWN:—I have noticed in several numbers of the Farmer, recently, discussions upon the value of lightning rods on buildings. It may not be out of place at this time for me to relate a circumstance which took place in Lowell, in July, 1845, on the farm then owned by Samuel Lawrence, Esq. The first thing after dinner was to rake up some hay, the foreman taking the lead. We had not gone more than 12 yards when he was struck by lightning and fell, never to rise again, on ear. The lightning struck him on the head, passing down the back and legs, and burst out his boots, which had only been on once, before that day. The lightning then burned a place in the grass as large as your hand. But what is remarkable about this is, about 35 yards to the left there stood some old cherry trees on which the scythes were hung; the man that was

killed, and the one next to him, was drawn off in the direction of the scythes about 34 feet. I send you this, thinking it may help to settle the question about how far rods will draw lightning. There were 7 in the field at the time, and all were hurt, more or less, but myself.

BLYTHEWOOD.

Swampscott, Sept. 30, 1854.

GUANO—LEGISLATIVE HELP.

In a correspondence with the Hon. CHARLES B. CALVERT, of Maryland, we made some inquiries with regard to the effects produced by the use of Mexican and other guanoes, and now copy below a portion of his letter in reply.

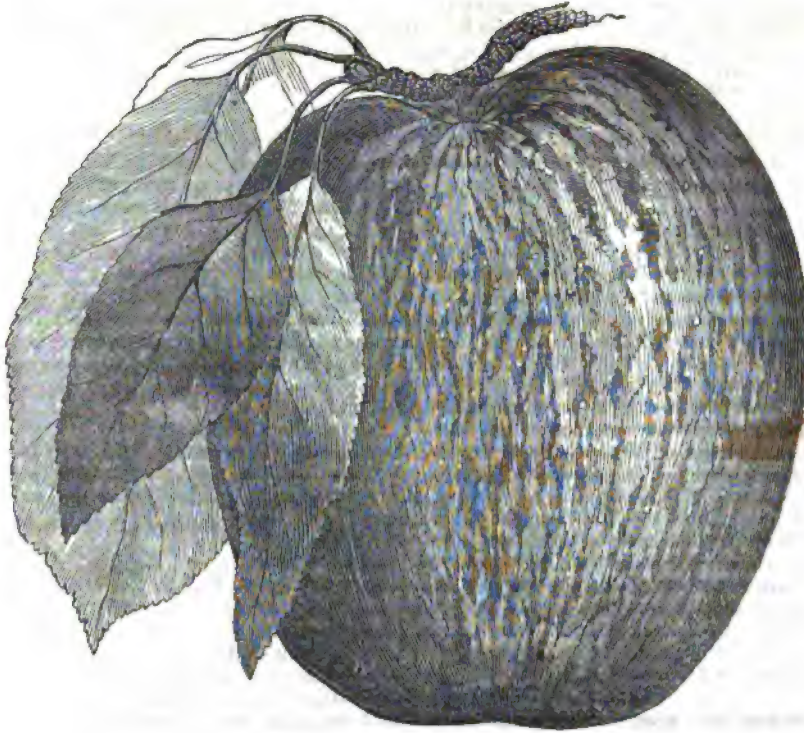
RIVERSDALE, Sept. 11, 1854.

DEAR SIR:—In regard to Mexican guano I cannot say much, although I have tried it several times; still, I have not seen any great effect from it, and am rather disposed to rely upon bone dust and ashes, which I find better than any kind of guano as a permanent manure. For a winter crop of grain, I think nothing produces so great an effect as Peruvian guano on the poor, worn-out lands; but upon the improved lands, or those naturally fine, it has scarcely any perceptible effect. These partial experiments with crops and manures produce, I think, rather prejudicial effects, because they are not conducted with enough precision and accuracy to state as facts; and when they are tried and fail, it rather prejudices any thing like book farming. Your agricultural papers should have a piece in every number, calling upon the farmers to MAKE their State legislators and Congress establish agricultural schools and experimental farms, where such things could be systematically tried, and their result published with confidence.

We have been entirely burnt up in this section, as the only rain we have had to lay the dust since June was yesterday. Gloomy prospects ahead for the farmers of this section. Not half a crop of corn, no vegetables, not even turnips—not a fourth of a crop of tobacco, and the pastures entirely burnt up, so the stock have nothing to get but what is given them.

Very truly, CHAS. B. CALVERT.

The above is only a portion of the whole letter, which was not intended for publication, though no objection, we presume, would be made to such parts as we have given. There are other portions, however, relating to the false doctrines promulgated, and the spurious substances thrust upon the farming community as fertilizers, which we wish we could give from a gentleman of so much practical experience and discriminating judgment as Mr. Calvert. Men engage in agriculture, as in all other business, without proper qualifications: if they succeed, they laud it to the skies, but if they fail, they decry it as loudly. This is an evil, but nothing compared with that of the false and contradictory teachings of those who have had no practical experience of the art, and who press upon the public their doctrines and their wares.



A NEW APPLE.

Through the attention of **GEORGE S. RAWSON, Esq.**, of Feltonville, Mass., we have received an apple, of which the above engraving is a faithful portrait, and one which we liked so well as to cause the engraving to be made. It is a sweeting, fall apple, very beautiful, is juicy, and has a rich flavor. We are not able to describe its color and other peculiar characteristics, as the apple was not returned to us from the engraver. Mr. Rawson says the apple grew upon the farm of Mr. **IRA BROWN**, near Feltonville, and that the scions were given to his father, Mr. **HENRY BROWN**, some twenty years since, by a person from some part of Vermont, to Mr. B. unknown. The specimen sent, as illustrated above, he says is nothing more than a fair average one, the drought having affected them to some extent. The person who gave Mr. B. the scions, was an itinerant grafter, who set a large number of scions in the neighborhood, but all the rest turned out cider apples, and poor at that.

The trees bear every year, but most in the even season.

The apple is new to us, but may be recognized by others as a variety in some particular locality; if so, we should be glad to know it.

AMERICAN POMOLOGICAL SOCIETY

Commenced its session in Horticultural Hall, School Street, Sept. 13th, Hon. M. P. Wilder, President, in the chair. A large number of delegates were in attendance, and nearly every State in the Union was represented. It was a pleasant thing to witness the hearty congratulations which were exchanged between members whose only strife with each other is to see who will best advance the interests of Pomological science, and who will shed the most light upon the great subject of fruit culture in America.

This society was organized some six years ago in Washington, and has flourished beyond the expectations of the most sanguine. The last convention was held in Philadelphia in 1852.

The President welcomed the delegates to this city, the home of the Pilgrims, in a most cordial manner. He eulogized our forefathers for their horticultural taste and their worthy endeavors to lay the foundation of American pomology.

He tendered to the members the hospitalities of the Massachusetts Horticultural Society, and congratulated them upon the preservation of life and health, and the increasing interest manifested in the cultivation of fruits throughout the country.

He discussed several topics, giving the results of his long and valuable experience, in a scientific and felicitous manner.

In relation to the production of new varieties of fruits from seeds he said—

"My next suggestion relates to the production from seed of new varieties of fruits adapted to particular localities or to general cultivation.

The immense loss to American cultivators, from the importation of foreign varieties, in many instances not well adapted to the countries from which they come, and often still less adapted to our soil and climate, suggests the importance of raising from seed, native sorts which, in most instances, possess peculiar advantages. It is now generally conceded that the trees and plants of a given country, like its aboriginal inhabitants, will flourish better at home than in most foreign localities.

We rejoice that public attention has been turned to this subject by some of our horticultural journalists, and that many cultivators and amateurs are engaged in this interesting and promising department. The success which has crowned their exertions affords great encouragement to perseverance. Witness, for instance, thirty or more varieties of the cherry, by Dr. Kirtland of Ohio, which appear adapted to our eastern climate, and some of them of superior excellence. Witness the numerous varieties of the raspberry, by Dr. Brinckle, ex-President of this Society, of which, some have endured, without covering, the severities of the last winter in the New England States, and which also promise to be valuable contributions to American pomology. In addition to these how many new varieties of the apple, the pear, the plum and the grape, have recently been added to the list of American fruits. How many new and excellent varieties of strawberry have appeared since the introduction of Mr. Hovey's seedlings.

These are sure indications of the success which will reward future efforts to obtain valuable and native varieties of fruit; and they point to the fulfilment of the prediction of the celebrated Van Mons, 'that the time will come when our best fruits will be derived from seedlings.' He gives the following sage counsel to his correspondents to whom he had sent trees—'Sow your seed and persevere without interruption and you will obtain even better fruit than mine.'

Among pioneers in this department I am happy to notice a gentleman (now residing among us) the pupil and friend of Van Mons, one who has adopted our country as his future home, and who has already transplanted to our soil many thousand choice seedlings of the pear, which have come into his possession from the collections of that gentleman and the celebrated Esperen.

As to the best method of producing fine varieties from seed, the opinions of distinguished pomologists are not uniform.

Duhamel, among the French, from causes which seem to us irreconcilable with nature and experience, entertained serious doubts of the practicability of any method for obtaining new and valuable varieties from seed, especially of the pear, because he had tried various experiments without success, for fifty years.

Dr. Van Mons of Belgium, instead of saving the seed of the finest varieties, selected those of inferior sorts, upon the principle that a kind having arrived at the highest state of perfection must deteriorate while an inferior one would improve by successive reproductions. He also contended that hybridization tended to degeneracy

and imperfection. Thus he assumes the doctrine that a perfect variety necessarily deteriorates, and also overlooks the fact observed by other distinguished men, that the improvement or deterioration of which he speaks may result from natural impregnation by the pollen of other varieties conveyed by the air or insects, and therefore that the seed of a good variety may produce either a better or a worse, and that of a bad either a worse or a better.

Mr. Knight's system of obtaining new and improved varieties depended entirely on hybridization or artificial impregnation, so lightly esteemed by Dr. Van Mons. This is somewhat difficult to practice on account of natural fertilization by insects and the wind; but it has the merit of depending on a truly philosophical principle, and with very particular attention may yet prove as available for the improvement of our fruits as it has for the production of fine varieties in the vegetable and floral kingdom, or as the corresponding principle has in the crossing of the breeds of domestic animals.

The results of Mr. Knight's experience disprove the tendency to degeneracy, inasmuch as many of his fruits, obtained by hybridization, are among the most durable and hardy varieties, as the Eye-wood and Dunmore pears, the Black Eagle and other cherries.

Many cultivators, as Esperen, Bivort, Beromans, and others, both in this and foreign countries, have sown seeds in variety, and have obtained some valuable sorts. But I am confirmed in the opinion that the best means of producing new and excellent varieties, suited either to general cultivation or to particular localities, is to plant the most mature and perfect seed of the most hardy, vigorous, and valuable sorts, on the pathological principle that like produces like, and upon the conviction that immature seed, although the embryo may be sufficiently formed to vegetate, yet not having all its elements in perfection, it will not produce a vigorous and healthy offspring. Dr. Lindley, commenting upon this practice, justly remarks—'All experience shows that in every kind of created thing, be it man, or beast, or bird, the mysterious principle called life remains during the whole period of existence what it was at first. If vitality is feeble in the beginning, so it remains. Weak parents produce weak children, and their children's children are weaker still, as imperial dynasties have sadly shown.' With him we believe this theory as applicable to the vegetable as to the animal kingdom. May not a disregard of this doctrine account for the great number of feeble, sickly, early defoliated trees often found in our grounds by the side of those that are vigorous, healthful, and persistent in foliage? Is not the theory we advocate as important in the production of fruit-trees as in the raising of cereal grains? The skilful agriculturist saves the best seed of his various crops and selects the best animals from his flocks and herds for breeders. Why should not this law of reproduction regulate the practice of the pomologist as well as of the farmer? Has the All-wise and Infinite enacted several laws where one would subvert the purpose?

To the doctrine of Van Mons, and other distinguished writers, respecting deterioration by age, and after a variety has reached its perfection,

there seems to be some exceptions. From the accounts of oriental travellers, may we not believe that the grapes of Eschol are as perfect now as when the chiefs of Israel plucked their rich clusters three thousand years ago?—and that the same variety of the fig, the olive, and the pomegranate, are as perfect in Syria to-day as in the period of David and Solomon? It is worthy of inquiry whether the native grapes, on the banks of our rivers, have deteriorated since the day when the red men of the forest refreshed themselves with fruit from those vines, and whether the orange, the lemon, the banana, and the fruits of Southern latitudes, evince any more signs of decay than they did centuries ago? In a word, whether this doctrine of deterioration is as applicable to the native as to the foreign fruit of a country?

Why may we not expect to obtain natural varieties of the apple and other fruit as durable and far more valuable than those which have passed their second centennial, as the Endicott and Stuyvesant pears? From meteorological and other causes, which we do not at present understand, particular varieties may deteriorate in a given locality, for a season, and afterwards revive; or, they may show signs of decay in one locality and flourish well in others not very remote, as the White Doyenne which has been considered, for many years, by some in this vicinity, on the decline, while it is perfect in several places in Maine, New Hampshire, Vermont, and other states. Fruit-bearing may exhaust the vital energy of the tree, and hasten decay, but still the variety may remain. We have, among fruit trees, no example of longevity equal to that of the new Taxodium, found in California, supposed to be three thousand years old. Our object is not to controvert the opinions of those who believe in the running out of varieties, whether their duration be limited to one hundred or one thousand years, but to enforce the importance of raising new varieties from seed, especially adapted to our own location."

Mr. Wilder discussed the arts of cultivation, the affinities and the non-affinities of the stock and graft, the art of preserving and maturing fruits. The latter he deemed of the greatest importance and but imperfectly understood. He closed as follows—

"Gentlemen:—The facilities afforded us for the promotion of pomological science should animate our exertions and encourage our hopes. Never before have cultivators of the soil enjoyed equal opportunities for the acquisition of knowledge, for its rapid and extensive diffusion, and for the advancement of those arts which contribute so much to the refinement and social happiness of mankind.

The age in which it is our good fortune to live is indeed eventful—so infinitely superior to all that have preceded it, that we seem to have issued from relative darkness into the dawn of a brighter day. We begin to see where we are, what cheering prospects are before us, and to anticipate the glorious destiny that awaits us.

I congratulate you upon the opportunity the present occasion affords for the interchange of cordial salutations, and of the personal experience which makes the knowledge of one the property of all—upon the variety of our soil and climate,

which enables us to produce nearly all the fruits of the civilized world—upon the progress of the arts of cultivation, and of a knowledge of the principles upon which those arts depend—upon the increasing interest of all classes of society in the growth of fruits, and the number of fine varieties which have recently been added to our lists—upon the skill displayed in rural architecture and landscape gardening in the suburbs of our cities and throughout our land—and upon the multiplication of societies and periodicals, which invite the lovers of nature to participate in the blessings which flow from rural life and cultivated taste.

If our present exhibition of fruits is less extensive than it would have been but for the remarkable drought, yet could our Puritan sires examine it, with what astonishment would they be filled. For instance, could Governors Endicott and Stuyvesant inspect our collection of pears, with what pleasure would they look back to the planting of the trees that still live and bear their names. And with what eloquence would they exhort us to perseverance, that our names also may go down to posterity honorably associated with the fruits of our labors!

But much remains to be accomplished. Improvements may hereafter be made more remarkable than any which have hitherto astonished mankind. Implements of industry may yet be invented still further to facilitate our labor, and to relieve its severity. Natural laws may be discovered upon which arts of a more successful cultivation may be founded. Remedies and agents may hereafter be discovered and applied for the cure of the diseases and for the destruction of the insects at present so injurious to vegetation. An these are not only possible but probable; for, ill the very constitution of our minds and of the material world, our benevolent Creator has provided for endless progress, and for a continual approach towards his own unapproachable perfection.

But how much study and experiment are requisite before we can touch the magic spring which shall reveal these wonders to our perception! We have no prophetic eye to look down the vista of ages and to discover the future; but, judging from the past, what incentives encourage our perseverance!

Gentlemen, go on. Prosecute the work you have so honorably commenced. Sow the seeds of your best fruits—raise new varieties—ply the arts of judicious cultivation—study the laws of nature and extend your researches and labors till our beloved land shall be adorned with orchards, vineyards, and gardens; and man shall realize the poet's idea of Paradise regained!"

On motion of Col. Henry Little of Maine, a nominating committee of one from each State, represented by delegates, was appointed by the President to nominate officers for the next perennial term. The following gentlemen were appointed on this committee:—

Col. Henry Little of Maine, B. F. Cutter of New Hampshire, Hon. T. S. Cabot of Massachusetts (President of the Massachusetts Horticultural Society) C. B. Lines of Connecticut, Mr. Barry of New York, Mr. Hayes of New Jersey, Dr. Wm. D. Brinckle of Pennsylvania, Samuel Feast of Baltimore, Mr. Hull of Illinois, Mr. Ab-

bot of Missouri, B. F. Nourse of Florida, and Joshua Pierce of District of Columbia.

Col. Little reported as follows:—

For President, Hon. Marshall P. Wilder; for Vice Presidents, Caleb Cope of Pennsylvania, A. H. Ernst of Ohio, S. L. Goodale of Maine, Col. B. Hodge of New York, Lawrence Young of Kentucky, H. F. French of New Hampshire, Frederick Holbrook of Vermont, Samuel Walker of Massachusetts, Stephen H. Smith of Rhode Island, Dr. A. S. Munson of Connecticut, Thomas Hancock of New Jersey, E. Tatnall, Jr., of Delaware, William C. Wilson of Maryland, Yardley Pierce of Virginia, Joshua Pierce of District of Columbia, Joshua Lindley of North Carolina, Robert Chisholm of South Carolina, Richard Peters of Georgia, C. A. Peabody of Alabama, B. F. Nourse of Florida, Thomas Affick of Mississippi, Henry E. Lawrence of Louisiana, Rev. C. H. Byington of Arkansas, Thomas Allen of Missouri, James Grant of Iowa, N. P. Talmadge of Wisconsin, W. D. Halay of Illinois, Henry L. Ellsworth of Indiana, D. W. Randall of Tennessee, Dr. Henry Gibbons of California, Edward Hunter of Utah, James Dougall of Canada West, and Hugh Allen of Canada East. For Secretary, H. W. S. Cleveland of New Jersey. For Treasurer, Thomas P. James of Pennsylvania.

This report was accepted. Mr. Wilder, on assuming the duties of the chair for the ensuing term, addressed the Society briefly. He remarked:—

Gentlemen,—I am not of the number who, having put hand to the plow, are disposed to look back, but I freely confess that it has been my inclination and desire (at this time) to retire finally from the chair. Having held the office of President for two biennial terms, I felt it due, alike to myself and to you, to resign this position to other members equally or better qualified to perform its duties. But at the instance of those whose opinions I feel bound to respect, I have consented to waive my private convenience and personal comfort in favor of their judgment,—and thanking you for this renewed testimony of your confidence and regard, I accept the trust, and will meet its responsibilities as far as I am able.

All persons present interested in the objects of the society, whether members of any horticultural society or not, were invited to take seats with the society and participate in its doings.

The President appointed the following committee to report "Business for the Convention":—Messrs. Walker of Massachusetts, Barry of New York, Keyser of Pennsylvania, Nourse of Florida, and Eaton of (Buffalo) New York. Mr. Walker subsequently reported as follows:—

Presuming that the session of the convention will be continued during three days, the committee recommend that the order of business shall be for the first day the discussion of the Pear; 1st, the rejection of unworthy varieties; 2d, varieties for general cultivation; 3d, varieties which promise well; 4th, varieties on quince. For the second day, Apples, and after that, Peaches, Plums and other fruit.

Reports of the Fruit Committees from the different States were now called for, and Mr. Samuel Walker of Massachusetts submitted a report containing a list of pears which it was recommended should be rejected. A general discussion ensued

on this report, in which Messrs. Cabot, Hovey, King and Walker of Massachusetts, Barry of New York and Prince of Long Island took part.

On motion of Mr. Hovey of Boston, the President proceeded to read the list of pears on Mr. Walker's list, and that the varieties should be rejected unless three members object. The following pears were retained on the list for further trial:—Beurre Adam, Du Mortier of Manning, Duchesse Dumas, Figue du Naples, Flemish bon Chretien, Hacon's Incomparable, March Bergamot, Knight's Monarch and Styrian.

In reference to the Knight's Monarch, Mr. Walker remarked that he believed more money had been expended on that fruit than on any variety in the country. He never raised a good specimen—at least he never ripened one. It is not only an uncertain fruit, but cracks badly.—As to ripening it in this section, he believed it to be totally impossible.

Mr. H. Lines of Connecticut said it seemed to him to be an imposition upon the public to recommend the Knight's Monarch pear. The object of the society was to benefit the public throughout the country, by recommending the cultivation of none but good fruits; the society had better turn their attention to the rejection of poor varieties than to increase the list.

Mr. Hancock moved a reconsideration of the vote whereby the Monarch pear was permitted to stand on the list.

Hon. B. V. French, Mr. Knight, and Mr. Thompson of the London Horticultural Society, speak highly of the Monarch. The tree is thrifty and is a good bearer. Considering the high character of the fruit in England, and the strong recommendations which have accompanied it, Mr. Thompson was willing to try it a little longer. After some further discussion the Knight's Monarch was retained upon the list.

Mr. Walker submitted the following list of varieties to be added to the list of pears for general cultivation: Lawrence, Howell, Beurre Superfine, and Beurre d'Anjou.

Mr. Walker remarked that he considered the Lawrence pear as one of the greatest acquisitions to our list of pears since he had been engaged in cultivation. Among the new varieties he knew nothing equal to it. Mr. Prince stated that the Lawrence pear originated in Flushing, L. I.—Mr. Walker believed the time would soon come when the Lawrence pear would be as eagerly sought after in Boston and New York markets as the old St. Michael was. The tree is thrifty, and has an abundance of foliage. Another property peculiar to the Lawrence pear is this: the fruit clings to the branches as though it had been tied on, reminding one of the Urbaniste in that particular. He wished that a unanimous expression should go out from the society, that the Lawrence pear is among the best late native pears in the catalogue.

Mr. Manning had known the pear for twelve years, and from his experience with it he considered it the most valuable pear that had been produced within that time.

Mr. Hayes remarked that the Lawrence pear originated on sandy soil, and would like to be informed whether it would grow as well on strong soil.

The President said he had grown it on stiff,

clayey soils. He entirely concurred in the general commendation that had been bestowed upon it. The Lawrence pear was then placed upon the list as a variety worthy of general cultivation, by a unanimous vote.

The Howell pear was next considered. Mr. Maunis thought it premature to place this variety on the list for general cultivation. Mr. Barry regarded it as a very fine variety, and would be willing to see it adopted in the list of pears for general cultivation. Mr. Lines said the Howell had all the qualities of a good pear; it was large, thrifty, and of uniform growth.

Mr. Cerchman of New York was of opinion that the Howell was one of the first fruits. Mr. Clark of Connecticut had found that it grew admirably on quince. It was a very early bearer, and trees two years from bud had fruited with it. He considered it a valuable variety. The President concurred with these views. He esteemed the Howell very highly, and was willing to risk his reputation by voting to place it on the list for general cultivation. Mr. Hancock moved that it be placed on the list of pears which promise well.

Mr. Hovey remarked that there was no one who knew the pear, but would say it was a good variety. Still he had not seen enough of the growth of the tree or of the general characteristics of the fruit to recommend it as standard fruit. It ripened in September, when we have an abundance of varieties, which was an objection. He would prefer to place it on the list which promise well, rather than to recommend it for general cultivation.

Mr. Manning thought it premature to place it at present on the list for general cultivation, but he would be glad to see it placed on the list which promise well.

Mr. Walker would place the Howell at the head of that list. It was placed on the list of varieties which promise well.

The Beurre Superfine was next taken up. Mr. Cabot regarded it as a fruit of very great excellence. It could be kept till November or December. Mr. Prince gave an opinion highly favorable to it.

The President remarked that his opinion corresponded with that of Mr. Cabot. It had all the good qualities of the Brown Beurre with a higher flavor.

Mr. Barry said the Beurre Superfine was one of the finest of pears,—large, hardy, and the tree bears young.

Mr. Hovey thought the society premature.—The variety had been under cultivation but three years. His opinion was that the variety is unexceptionable, but it was also his opinion that it had not been tried sufficiently. He was willing to put it on the list that promise well.

Dr. Eschelman of Pennsylvania had grown this variety three years. He should only recommend it as very good. The Beurre Superfine was placed on the list of varieties that promise well, by a unanimous vote.

The pears that were placed in the list of varieties which promise well were now taken up, and each variety considered separately. Quite a discussion arose on the quality of the different varieties as they were called, and the experience of members was various, some varieties proving in some locations superb, in others of no value. The

discussion on this point was continued until 2 o'clock, when the convention adjourned, to meet again at 4 o'clock.

The Convention reassembled at four o'clock and the subjects under consideration at the time of adjournment was resumed, and occupied the entire time until the adjournment. Brande's St. Germain was stricken from the list and disgraced by a unanimous vote. The Diller variety was also discharged. Manning's Elizabeth was promoted to the list for general cultivation.

The discussion on the qualities of these different varieties was quite full and very interesting, but our limits will not permit a synopsis of the remarks which were made.

FIG TREES.

When our citizens purchase figs in our market, they have but little conception of the size of the trees that have yielded the delicious fruit they are now tasting.

We have written this communication beneath the magnificent fig trees in the fruit garden of E. L. Beard, Esq., of San Jose. We have just measured two of a group of *ten fig trees*, the least of which measures 2 1-2 feet in circumference. The trees of the group are *forty feet high*, and the largest measures 5 1-4 feet in circumference; the limbs eleven feet from the ground measure 2 feet two inches in girth; limbs four feet from the ground measure 3 and 3 1-2 feet in circumference. The leaves upon the trees measure 18 inches across. This may seem incredible, yet these are facts. The fruit is just now ripening, and one specimen before us measures eight inches in circumference. Such fruit can be easily raised, and will be by those who make California their "home." The fruit gardens of Mr. Beard now present a cheering sight. Pear trees are bending beneath the weight of their fruit, which hangs in immense ropes and clusters, causing the entire trees to assume the appearance of weeping trees. There are no grounds in the State that present a finer appearance than those we name; young orchards of acres, numbering thousands and tens of thousands of trees, are coming into bearing, giving promise of future abundance. Surely, such effort on the part of our cultivator deserves a corresponding reward.—*California Farmer*.

SINGULAR ANECDOTE OF A THRUSH.—There is much more intellect in birds than people suppose. An instance of this occurred the other day, at a slate quarry, belonging to a friend, from whom I have the narrative. A thrush, not aware of the expansive properties of gunpowder, thought proper to build her nest on a ridge of a quarry, in the very centre of which they were constantly blasting the rock. At first, she was very much discomposed by the fragments flying in all directions, but still she would not quit her chosen locality; she soon observed that a bell rang whenever a train was about to be fired, and that at the notice the workmen retired to safe positions.

In a few days, when she heard the bell, she quitted her exposed situation, and flew down where the workmen sheltered themselves, dropping close to their feet. There she would remain until the explosion had taken place, and then return to her nest. The workmen observed this,

narrated it to their employers, and it was also told to visitors who came to visit the quarry. The visitors naturally expressed the wish to witness so curious a specimen of intellect; but as the rock could not always be blasted when visitors came, the bell was rung instead, and for a few times answered the same purpose. The thrush flew down close to where they stood, but she perceived she was trifled with, and it interfered with the process of incubation; the consequence was, that afterwards when the bell was rung she would peep over the ledge to ascertain if the workmen did retreat, and if they did not, she would remain where she was, probably saying to herself—"No, no, gentlemen, I'm not to be roused off my eggs merely for your amusement."—*Cor. London Dispatch.*

GREAT NATIONAL CATTLE SHOW.

The United States Agricultural Society, of which the Hon. Marshall P. Wilder of Massachusetts is President, will hold a National Show of Cattle, open to general competition, without sectional limit, on the 25th, 26th and 27th days of this month, at Springfield, in the State of Ohio. *Six Thousand Dollars* will be awarded in Premiums, several of which are larger than have ever been offered by any Agricultural Society either in this or other countries. Among these we notice the following:—*Five Hundred Dollars* for the best bull and five cows or heifers, of one year or upwards, from any one herd. *Three Hundred Dollars* for the best Durham bull. *Two Hundred Dollars* for the best Durham cow. Other large premiums are offered in the respective breeds. The judges in the various classes have been selected with great care, and constitute a phalanx of Agricultural talent of the first order. Among the names we find those of Gov. Wright of Indiana; Col. Stevens, John A. King, Lewis F. Allen and Col. Johnson, of New York; Cassius M. Clay and Brutus J. Clay, of Kentucky; Judge Watts and Dr. Elwyn, of Pennsylvania; Judge Musgrave and Col. Medary, of Ohio; Richard Peters, of Georgia; S. B. Findlay, of Virginia; and from Massachusetts, Moses Newell, O. V. French, John Brooks, Paoli Lathrop, Simon Brown, and other distinguished Agriculturists.

Extensive preparations have been made for the accommodation of strangers. Extra trains will convey passengers to the neighboring cities and towns, who cannot obtain lodgings at Springfield. Private houses will also be open for the reception of guests.

The principal railroads will take stock *free of charge*, and passengers at *half price*. On stock the freight must be paid on the passage out, and on the certificate of the Secretary of the Show that the animals have been exhibited and have not been sold or exchanged, the money paid for transportation will be refunded, and they returned free to the point from which they started.

Visitors should be careful to obtain excursion tickets on the several railroads, and at Springfield to have them stamped by the Secretary of the Show, in order to make them available on their return at half price. Passengers from New England will take the New York Central Railroad at Albany.

On Thursday, October 26th, at 2½ o'clock, P M.,

a Grand Agricultural Banquet will be held on the grounds, and at which Col. Wilder, the President of the Society, will preside. The President of the United States, the heads of departments, the Governors of the States, with other distinguished guests, have been invited to attend. It is anticipated that this will be one of the most interesting and imposing parts of the exhibition, and in which ladies, as well as gentlemen, will participate. The exhibition of cattle will be largest ever held in America, if not in the world, and the concourse of people will be immense. From Massachusetts, there will be a large delegation.

Persons desirous of obtaining any further information in regard to the exhibition or the transportation of passengers or stock, may procure the same by addressing Wm. S. King, Esq., Secretary of the United States Agricultural Society, at Horticultural Hall, Boston.

THE PUMPKIN.

At the dinner of the Bristol County Agricultural Society in New Bedford, on Thursday last, Charles T. Congdon, Esq., editor of the *New Bedford Mercury*, was called upon by the President, to which he made a response in verse, from which we copy the following capital passeyrie on the pumpkin:

O dear New England! who shall dare dispute
Thy well-earned title of the Land of Fruit,
When on thy hills yon glowing globe we see—
Pumpkin or pompon—doctors disagree?
Lo! where the verdant vines luxuriant run,
He turns his fair, round belly to the sun!
Bathed in those beams he, comatos and calm,
The bursting Falstaff of the blooming farm,
Awaits his fate—the inevitable hour—
The hand that plucks him from his native bower,
Only exclaiming, could we hear his cries:
"Take me to Bedford, and I'll take the prize!"

O yellow orb! no hand divine is nigh,
To snatch thee up and set thee in the sky,
A modern star, uncatalogued and new,
To fright the saints and bother science too;
But bide thy time!—when chill November falls,
A voice shall issue from the State House walls;
And every parson, from his pulpit high,
Proclaim aloud Thanksgiving Day is nigh.
Then, when around the dear domestic board
Affection's tide has tremulously poured;
When the fond mother—years of absence o'er—
Clasps to her heart her wandering son once more;
When love, refusing to be longer pent,
Smiles in the eyes a timorous ascent;
When laughing childhood, full of fowl and fun,
Finds to its wonder that it cannot run—
'Tis then, O premium pumpkin! then shall shine
In splendor new this excellence of thine.
Pie of my country! still upon thy breast
Midsummer sunbeams in November rest;
The magic circle of thy snowy paste
Delights the eye and titillates the taste;
While through thy form the steel is ranging bright,
Our aqueous mouths are puckered with delight,
And like faint soldiers who from fight would cease,
We cry for quarter and demand a piece.

☞ Instruct your son well, or others will instruct him ill. No child goes altogether untaught. Send him to the school of wisdom, or he will go off himself to the rival academy, kept by the lady with the cap and bells. There is always teaching going on of some sort, just as in fields—vegetation is never idle.

MIDDLESEX COUNTY AGRICULTURAL SOCIETY.

OCTOBER THIRD AND FOURTH.

Report of the Show of Fruit, Vegetables, &c., at the Society's Exhibition Hall.

In attending to our duties as Secretary of the Society, we were deprived the opportunity of making up a report of its doings; and on the morning succeeding were obliged to leave for New Hampshire, to deliver the Address at the State Fair, at Keene. We have, therefore, availed ourselves of the skill of Wm. D. BROWN, Esq., in making up the account of things in the Exhibition Hall, and of Dr. JOSEPH REYNOLDS that of the stock, plowing, services at the church, dinner table, &c., and give them below.

The display of fruit, vegetables, household articles, &c., in the Society's Hall on the exhibition ground, was very fine, and examined with great satisfaction. Cultivators and amateurs found it an admirable opportunity to compare fruits, and judge of new varieties. Those who have been backward in raising good fruit, saw here, almost in bewildering profusion, what the earth would produce if treated with intelligence and skill. The lovers of fine apples, pears and peaches—and this class includes about everybody—inspected the long lines of loaded plates and baskets, and breathed the air perfumed with the rich odors of the grape, with many signs of pleasure.

The departments allotted to household manufactures were not fully occupied. For this occasion, at least, the ladies were willing that their part of the exhibition should be overshadowed by the rich productions of the garden and orchard.

With many of the articles on their table we were, unfortunately, not familiar. We appreciated the excellent socks from Woburn; those by Miss R. Rogers were very desirable. We noticed an embroidered scarf, by Mrs. G. L. Prescott, of Concord; a pretty bonnet *without a face*, by Mrs. J. Gleason, Concord; beautiful wax flowers, by Amelia Johnson, Charlestown; a child asleep upon a wide-awake dog, in worsted, by Miss Helen G. Reed, Woburn; infant sack and shoes, by Miss R. M. Barrett, Concord; a pencil drawing of Gen. Washington, by Mary J. Smith, Waltham; antique chair, with "twenty-eight thousand seven hundred stitches" in the worsted back! by Miss Margaret Rice; blankets, by Mrs. H. Tarbell; leather picture-frames, by Miss S. C. Brown, Concord; frames covered with fir cones, by Mrs. H. Pierce, Lexington; chairs, crickets, lamp-mats, embroideries, wrought slippers, and the funniest little shoes—for some cherub, a first pair.

We were led away from these attractions to the table bearing twenty dishes of Mr. E. W. Bull's famous "Concord grape." The bunches were large. The berries were rounder than the

Isabella, of a dark purple. The cluster was close and compact. The grapes were fully ripe and very fragrant. They ripen earlier than the Isabella, even if exposed in the open air. So says Mr. Bull.

The Concord grape has met with a great sale. If others shall be discovered as valuable, great credit will accrue to Mr. Bull for introducing the first vine possessing such hardiness and excellence.

S. C. Wheeler, Groton, showed the only plate of Northern Spy we saw on the tables. They are not so brilliant or saleable as Baldwins. The Northern Spy is recommended as a late keeper, hardy, and good bearer. Wm. Leighton, Concord, had fine apples in large glass dishes.

Robert Chaffin, Acton, showed three large bunches of grapes hanging to a stem six inches long; Mrs. M. K. Prescott, Concord, large basket of fruit; Albert Hagar, Lincoln, fine late Crawford peaches; W. W. Wheildon, of the *Bunker Hill Aurora*, from his fine garden in Concord, Maiden's Blush—a *selling*, if not a *telling*, name—Lady apple, &c. Josiah Stickney, Brighton, 18 plates of beautiful pears; Wm. T. Conant, South Acton, assortment of fine fruit; Mr. Buckminster, of the *Massachusetts Ploughman*, very fair large Roxbury Russet, which, it seems, can be grown good-looking. H. A. Wheeler, Concord, had a basket of good fruit; Asa Clement, Dracut, a large variety of apples, pears and peaches; James Eustis, South Reading, among other kinds the fine German apple, the *Gravenstein*, which every cultivator should have—and, also, the *Fisk Russet*, more *un-desirable*. Mr. Eustis says the York Russet trees furnish prime stocks for *grafting* good kinds into! Those who have the trees may bear this in mind with profit! N. P. Morrison, Somerville, showed fine apples, and among them a beautiful red seedling, high colored, good shape and finely-flavored, which will prove a fine variety. Edward T. Chandler, Lexington, exhibited some tempting Coe's Golden Drop plums; G. M. Barrett, L. Eaton, George Wood, Minot Pratt, John Brown, W. D. Brown, J. P. Brown, apples; E. Tolman, quinces, "all of Concord." There was a small show of butter; somehow "the butter *wouldn't come!*" Mr. A. G. Sheldon, of Wilmington, took home the "silver spoons" (1st prem.) for the best lot. Near by to the butter was honey from Charles Willis's hive, Concord; part of the "seventy pounds" made this summer by the swarm. In this attractive neighborhood, too, we found the *bread*, which the Society wisely deem of so much importance to be well made, especially by the "*unmarried.*"

The vegetables were good for the season. W. D. Brown showed a peck of potatoes raised from one potato and *one hill*; John R. Hardy, Waltham, Custard Squash; John Reynolds, Concord, fine varieties of potatoes and squashes; Minot Pratt,

Concord, Gilliflower potatoes of tremendous size; N. Barrett, blood beet; A. B. Heywood, onions; Eliza Emerson, seedling, a twin pumpkin, a great curiosity: W. D. Brown, corn, raised from seed found with an Egyptian mummy; Thomas Page, Waltham, hot-house grapes of extraordinary size; and John B. Moore, Concord, a very extensive and well-arranged variety of the rich products of his excellent farm.

The handsome carpets suspended over head, from the Carpet Hall of Wm. P. Tenney, Boston, made a fine appearance. There was near them a praiseworthy specimen of domestic manufacture, by Mrs. G. M. Barrett, Concord.

We expressed our belief last year, that increasing attention is being paid in this State to the rearing of horses. The exhibition of colts this day gave abundant evidence that our belief is well-founded. There was a large number of fine colts on exhibition, among which we will venture to notice one by Josiah Bigelow, Groton, one by J. B. Farmer, Concord, one by S. C. Wheeler, Groton, and a fine black four-year old by a man whose name we did not learn. There were other fine ones mostly yearlings.

The exhibition of stock, we think, surpassed what we have seen on any former occasion. Mr. BUCKMINSTER's Devons occupied several pens, and included some fine specimens. There were many other fine animals of this breed on the ground. S. C. Wheeler, Groton, had three fine Herefords, the only ones which we saw on the ground. There were several fine Alderneys, pure and half-bloods. Of Durhams and native, there were many fine samples. The dairy cows of G. M. Barrett, John B. Moore, S. G. Wheeler and others, it would not be easy to beat in Massachusetts or out of it. The number of working oxen was small compared with many exhibitions in the interior, but there were several yokes containing more or less Devon blood, that were equal in beauty, and all the important points of the working ox, to any that we have ever seen in any part of the country.

The Middlesex farmers have learned that it takes a *very fine* pig to get a premium in this county, and they exhibit no others. Mr. Haven of Framingham, sustains his position as one of the most successful swine raisers in the State. Mr. Sheldon of Wilmington, had his usual variety on exhibition; Mr. C. B. Clark, of Concord, had a pair of promising Essex pigs, of the black variety. John Reynolds had a good boar, and Josiah Bigelow of Groton, had the best Suffolk boar, we think, we have ever seen. He has been for many years endeavoring to improve the breed, and has succeeded in rearing an animal much superior in the essential points to most of the imported specimens.

The samples of butter were few but fine. The

piles of loaves, white and light, exhibited by the girls, shewed to a demonstration that good housewives may yet be found in old Middlesex. No young man need fear to unite his fortunes with the girl who can keep a good district school, and take the first premium for the best loaf of bread.

On Wednesday morning, the clouds were threatening, but the rain held off until after the Plowing Match was over. The ground selected was a mile from the village; most of it was meadow, a meadow abounding in cranberry vines and hassock grass. But the twenty teams started promptly at 9 o'clock, under the direction of G. W. SOMERBY, Esq., Chief Marshal, and went into it with a will that showed that no ordinary obstacles would turn them out of their course. There were single teams and double teams, ox teams and horse teams, single plows and double plows; we noticed that on the cranberry land, the double plows clogged badly. Some who started with the double, exchanged it for the single plow. The work was all handsomely done. We noticed especially a single team with a double plow, driven by Horace Heard of Wayland, and another single team with a double plow, by a son of G. M. Barrett, Concord, that did their work with great ease, and left the land in fine condition for tillage. We noticed two or three double swivel plows, which made very good work; but where all did so well it is difficult to discriminate. The teams all made good time, and everything went off in good order. The Drawing and Spading we did not see, but refer to the list of premiums for the result.

At 12 o'clock punctually, the procession started for the church, where a neat and interesting discourse was delivered by Rev. G. E. ELLIS, of Charlestown; after a pleasant introduction in which he acknowledged his ignorance of both the theory and practice of agriculture, he proceeded to consider agriculture,

1st. As a necessity.

2d. With respect to its profits.

3d. With respect to its enjoyments and improvements.

The discourse was highly creditable to the good taste of its author. We should prefer that our orators, on such occasions, should be either practical farmers, or thoroughly scientific men. If we must have speakers who are neither the one nor other, we like to hear them discuss those collateral subjects, which they as fully understand and appreciate as farmers themselves. Reading up a little science for the occasion, and attempting to instruct a company of practical men, does little more than expose the ignorance of the speaker, and weary the patience of the hearer. All this was avoided on the present occasion, and the address was well received by an intelligent and gratified audience. The singing, too, went off well;

we think we never heard the old *Harvest Hymn* performed in better style.

A little before 2 o'clock we came around the tables in the Town Hall, which were abundantly supplied in Smith's best style. As the President was unable to speak from a severe cold, Judge Mellen presided at the table. Mr. STAPLES of Lexington, acted as Chaplain on the occasion. G. M. BROOKS, Esq., was Toast-Master. After a successful attack on the provisions, speeches were made by Judge Mellen, Mr. Ellis, Mr. STAPLES, CHAS. L. FLINT, Secretary of the Board of Agriculture, and the venerable Mr. BUCKMINSTER of Framingham. Then followed the report on Bulls. Next a speech from Hon. LINUS CHILD, of Lowell, who was followed by Mr. WHITE, of the same city. Next we had an entertaining report from the Committee on bread by NATHAN BROOKS, of Concord. This was followed by a speech from Mr. ANGER of Concord. The remaining reports of the awarding committee followed. Other short and pertinent speeches were made, and the exhibition closed to the entire satisfaction of all concerned.

Although several specimens of fine stock and fruit were diverted from this exhibition by the south Middlesex organization, yet we think we have never had a better exhibition in old Concord. The arrangements were well made and promptly executed. There was "a place for everything, and everything in its place," and the machinery all moved steadily on with the least possible friction. The promptness with which all the arrangements were carried out, was a very agreeable feature, from the beginning to the end of the exhibition.

For the New England Farmer.

STATE ALMS-HOUSE AT TEWKSBURY.

MR. EDITOR:—I thank your venerable correspondent from Wilmington for his advice; hope he has made no charge of it in his books; but beg leave to ask him what the land in the "western part of Tewksbury" has to do with the soil of the "State Farms" about the Alms-House? Whoever questioned the fertility of the soil along the banks of the Merrimack? I have seen as fine acres there as anywhere else; and three miles south of this, I have seen as poor acres as I ever saw anywhere else; and, if I do not mistake, such is the general character of the alms-house farm. The gentleman says he did not intimate "a word about wells to be dug, but simply remarked about improving the wells." Perhaps I was wrong in understanding what he said. I frankly admit that I was green enough to suppose that wells which did not readily yield a sufficiency of water, could be best improved by being dug anew. That there has been a marked deficiency of water at this institution, I cannot for a moment doubt. The Doctor has a great repugnance to "Mr. Anonymous." In this matter I cannot consent to relieve his sensitiveness.

Faithfully yours, *.

Oct. 7th, 1854.

For the New England Farmer.

MIDDLESEX SOUTH AND HAMPDEN COUNTY FAIRS.

MR. BROWN:—I have just returned from a three days' absence, in which time I have had the pleasure of attending the Cattle Shows at Framingham and Springfield.

The Middlesex South Agricultural Society held its first Show at Framingham, on Tuesday and Wednesday, Sept. 26 and 27. From my observations on the second day, I judge the Society to be very successful in its first exhibition. The cattle in the pens (ninety, erected at a cost of \$1,000) were mostly superior animals. I noticed a fine imported Devon cow, owned by Joseph Burnett, Southboro'. The Hungarian Cow, imported by A. S. Lewis, was a beautiful animal. Henry Rice, of Marlboro', exhibited several superior animals. The President of the Society, Mr. Buckminster, had 8 cows in the pens, and a large number of calves, of the Devon breed. One great advantage in raising Devons is that your animals will be all alike—one shape and color. No white legs or yellow ears. One ox of a Devon pair will not have horns standing bolt upright, and his mate with horns carried level with his back. Mr. Buckminster had some yoked cattle in the pens which showed this to all. The pens were well filled. A few breeding mares with handsome colts attracted much attention. The colt exhibited by Charles Howe, of Marlboro', was a well developed animal, and very large for his age. Mr. Howe knows very well the importance of liberal treatment of his young, growing animals. Great colts naturally become great horses, and bring a great price.

The town teams made a large display. Great lusty beeves, by the twenty or thirty yokes, were standing or lying about the exhibition lot. At this point in my observations I saw the teams returning from the plowing-match. One team had been plowing *Spanish*. The man with the long pole for a whip was a negro. (A bystander suggested that he was "*home-made*.") The oxen were tackled Cuba fashion, with a straight bar attached to their horns. The plow was a sort of hog's nose, with one handle to steer. It was drawn by a pole with a wooden pin at the extremity which held on to the yoke. Some little difference between this rig and an outfit from Quincy Hall!

The show of fruits, vegetables and manufactured articles was under a part of the mammoth tent, where the dinner was provided.

There was another newly invented haycutter—a sort of trough, with a revolving horizontal shaft armed with hooking flanges, which press the hay against a number of fixed knives. Near this was a new kind of a corn-sheller, upon which Mr. Isaac H. Cobb, the agent, sat and turned. The carriage and harness by Hollis Hastings were well finished. A lot of shoe knives appeared to be made of the right stuff by a Mr. Jennings, of Natick. A fine dish of large, rich native grapes bore the name of Jacob Pratt. Isabella grapes by Joseph Phipps were very fine. Obed Winter's peaches were very hard to go by. Peter Fay, of Southboro', had many tempting specimens. (The frequency of the cards, "*Visitors are requested not to touch*," &c., along this table, showed a lit-

the anticipated danger!) W. Atchison, Saxonville, exhibited the largest Isabellas I saw. The bunches weighed a pound!

In the bird line there was, among others, a coop of Aylesbury ducks, owned by Wm. Bent, Cochituate village. Also, an honorable hen with 18 chicks of good size, hatched and raised up through the usual perils without loss, at Mr. Buckminster's.

The vegetables were represented by a great variety of creditable specimens.

I now left the tent to see the *drawing*. A pair of oxen owned by Henry Rice, of Marlboro', very carefully driven by his farmer, moved the load of rocks up the hill and seemed to make nothing of it. Other cattle showed good training, and were quietly driven.

The next business was to hear the Address.—This was delivered in the Baptist Church, by Col. Isaac H. Wright, a gentleman of some *military* reputation. It was well pronounced, and if somewhat general in its character, it had the great merit of brevity.

The dinner was by J. B. Smith. It was abundant and excellent, but had to be taken with a heavy installment of the "peck of dirt" which every man is bound to eat in his life-time.

After the physical wants had been supplied, the intellectual feast was introduced by some remarks of Mr. Buckminster. Mr. Train, the District Attorney, acted as toastmaster, and quite happily called out the distinguished gentlemen present. Speeches were made by Col. Ivers Phillips, of Fitchburg, Hon. Tappan Wentworth, Representative to Congress from the 4th District, Hon. Charles Devens, late U. S. Marshal, and Mayor Smith, of Boston. The Mayor made one of his easy, off-hand speeches, drawing largely upon what he had seen of the state of agriculture during his recent travels through Europe and Asia Minor. He spoke of the fifty thousand cavalry horses which he saw at Constantinople.—Their living was nothing but a few quarts of chopped straw and beans, fed to them in a bag. Dr. Smith wonders that this fare for their animals is not adopted by Americans. He says the Arab horses are spirited and beautiful, and their principal food is *beans*. He predicts that the wild grass fields will be superseded by smaller fields of *beans* (!) grown as food for our animals. The time may come, but some learned man must show us how to teach the brutes to eat this new provender. An experiment or two has shown me that one rather intelligent horse will "stand out" not to "know beans!"

I was obliged to leave the table at 4 o'clock, and saw many other gentlemen present, from whom good speeches were expected. Getting aboard the express train at South Framingham, a ride of two and a half hours brought me safely to the Connecticut river. The cool air of the journey was especially grateful after the sweltering heat and dust at Framingham.

The Hampden County Agricultural Society held its tenth annual show on the 27th and 28th of September. Springfield was beautiful the second day. The streets were well watered. The sidewalks cleanly swept. The trees that line the principal thoroughfare were gay with their autumnal dyes. The air that came down from the mountains to the North, imparted a bloom to

many a healthy countenance, happy with anticipation of the day's festivities.

There was great excitement in North Main St. to witness the show of horses. About 100 were entered; among them was the famous *Morrill* horse, which took the second prize at the "Great Horse Show," last fall. There was a noble animal which has just been purchased by his present owner, John A. Hemenway, of Suffield, Ct., for \$1000. There were several pairs of beautiful carriage horses, whose movements attracted much attention.

After the exhibition of horses was over, the company formed a procession, with a fine band of music, and repaired to the Baptist Church, to hear the address by Prof. Nash. The address was earnest and practical. It was commenced at a late hour, and was unusually lengthy, but the audience seemed interested and attentive. Prof. Nash drew largely from his observations during his recent travels in Europe, and gave many interesting facts connected with British and Belgian agriculture. He knew too much of his subject to deal in generalities, and in his remarks came close home to his hearers. He showed the improvidence of spending in this country twelve millions of dollars for guano, as had been done this year, when for one-twelfth part of that sum the same value could be obtained and retained on the farm, or in neighboring cities. He spoke of barns which he knew of, where the escape of ammonia was sufficient to make the strongest man weep; and of others that were sweet and wholesome. A little dried swamp mud, or clayey loam, judiciously sprinkled, made the difference, and saved great value to the farmer.

After the address, the Society marched, with a very good will, (3 o'clock,) to Cooley's Hotel, where a first rate dinner was served to each guest. When the substantial had been disposed of, the President, Mr. Brewer, made a few remarks, in which he alluded to the first cattle show in the State, 45 years ago. It was that of the venerable Berkshire Society, which, it seems, commenced the good work.

The President now introduced to the company Dr. S. Reed, of Pittsfield, a member of the State Board of Agriculture. Dr. Reed spoke of horses. Mr. John Eden, of Northampton, gave a sentiment. Mr. W. C. Goldthwait, a teacher from Westfield, spoke of having had but little experience in farming, but he had done something at *trimming* among suitable apple tree sprouts. Mr. G. urged that instead of *money* premiums, it might be better to award useful and substantial articles. He spoke of being present at a fair where the premiums were of this description, and were arranged on a table in front of the desk in the church, and the fortunate recipients were called out to take them.

Prof. Nash spoke of the attention and kindness he uniformly received in England, of the good feeling there existing towards Americans, and how impossible it would be to bring about another war with England. These remarks called up Mr. Eden again, who was an Englishman. He thanked Mr. Nash very feelingly for his favorable mention of his countrymen. He was certain that the more the English became acquainted with Americans, the more they would esteem them.

Rev. Dr. Osgood made a few pleasant remarks.

Rev. Dr. Ide said but two professions were spoken of (at first,) in the Bible: that of the priest and the gardener. He had no doubt all others were the result of *sin*! He would not say that they were sinful.

The speaking was followed by the reading of the premiums.

The display of fruit, vegetables, &c., was in Hampden Hall. There was a great variety of fair potatoes, grown on land evidently *prepared* for the dry season. I noticed the Marcer, the Carter, the Peach Blow, and the "Jenny-Lind." Behind the vegetables was a "section" of a large mirror, about which visitors seemed merry. A friend gave us the story: A flock of sheep were passing down Main Street, and when against Bailey & Bowers' jewelry store, the back wall of which is covered with mirrors, they looked in, and, sure enough, saw another flock headed the *same way*! The sudden attempt to join them was attended with a bill for their owner for broken mirrors to the tune of something less than \$25, which he, probably, found *not an illusion*!

I was interested in the atmospheric light, which was burning with great brilliancy. Mr. A. M. Mace described the process of manufacture to all. He had a small glass vessel filled with the necessary articles for its production, where all could see the thing done on a small scale. In the bottom of the vessel was water; above this, spirits of turpentine, and at the top, bensole or liquid carbon. By a tin tube, air was introduced at the bottom, and rising through the water, became humid or vapory. It then absorbed hydrogen from the turpentine and carbon from the bensole, and escaping, was combustible and brilliant. A light equal to a coal gas-burner that consumes four feet an hour, can be afforded for three-fourths of a cent an hour. The discovery promises something in these days of miserable oil.

From this light affair I passed on to the *not* light affair of examining the apples, pears, peaches and grapes. Hampden County produces creditable specimens of fruit, even in dry seasons. I thought such a display would stir up a good many to plant and graft trees another spring, and set out a grape in that good sunny place by the kitchen door.

The number of loaves of bread was not great, but the previous action of the committee ought to be remembered in connection. There was good cheese and butter and honey, hard by. A plate of figs, grown in Springfield, as well as fine looking oranges, attracted attention. Bennett Allen's telescope was looked at, if not through. A multitude of deserving objects room prevents noticing. The Hall was handsomely filled, and much satisfaction seemed felt by all.

I close this imperfect sketch of the day, with thanks to the Secretary of the Society, Mr. A. A. Allen, for polite attentions. W. D. BROWN.

Concord, Mass., Sept. 29, 1854.

MAMMOTH WATER-MELON.—Mr. P. D. COBURN will please accept our thanks for the finest specimen of water-melons which we have seen this year. The melon was very large, weighing 36 pounds, and of course was enough to feast all hands.

MIDDLESEX AGRICULTURAL SOCIETY.

List of Premiums awarded at Concord, Oct. 4, 1854.

FARMS.	
Josiah Bigelow, Groton,	\$25 00
Mr. Murray, for Miss Green, Waltham,	12 00
BOG MEADOWS.	
Joshua Webster, Malden,	\$12 00
John B. Moore, Concord,	8 00
APPLE ORCHARD.	
J. W. Brown, Framingham,	\$12 00
Hiram Woodis, South Reading,	10 00
William Buckminster, Framingham,	6 00
FLOWING—DOUBLE TEAMS.	
John W. Rice, Sudbury,	\$10 00
R. M. & G. W. Moore, do.	7 00
Charles Wheeler, Acton,	6 00
Henry Brooks, " "	5 00
SINGLE TEAMS.	
Horace Heard, Wayland,	\$10 00
H. A. Sheldon, Wilmington,	7 00
John W. Rice, Sudbury,	6 00
James A. Barrett, Concord,	5 00
HORSE TEAMS.	
Gardner Wheeler, Concord,	\$10 00
Samuel M. Thomas, Wayland,	7 00
John Eaton, Sudbury,	6 00
William Hastings, Framingham,	5 00
WORKING OXEN.	
Daniel L. Giles, Lincoln,	\$8 00
John Lawrence, Concord,	7 00
H. A. & S. A. Coburn, Lowell,	5 00
FAT CATTLE.	
H. A. & S. A. Coburn, Lowell,	\$8 00
Calvin Flske, Waltham,	6 00
SPADING.	
H. C. Watts, Concord,	\$5 00
John O'Brien, " "	4 00
Henry Mullett, " "	3 00
Michael O'Brien, " "	2 00
John W. Garfield, " "	1 00
MILCH COWS.	
Asa G. Sheldon, Wilmington, best native cow,	\$8 00
Joshua W. Brown, Concord, next best,	6 00
George M. Barrett, " " "	4 00
" " " best Ayrshire cow,	6 00
E. J. Leppelmann, Concord, next best,	5 00
William G. Barrett, " best Devon cow,	6 00
Joseph Derby, " next best,	5 00
BULLS.	
J. Porter, Lowell, best native, 4 years old,	\$8 00
Daniel L. Giles, Lincoln, next best,	5 00
George M. Barrett, Concord, best Ayrshire,	6 00
Horace Heard, Wayland, next best,	5 00
Joseph Derby, Concord, best Devon,	6 00
George Chandler, Shirley, best Alderney calf,	4 00
Artemas Longley, Groton, next best,	2 00
S. C. Wheeler, " Hereford cow and bull,	8 00
STEERS.	
William Buckminster, Framingham, three years old,	\$8 00
Nathan Pratt, Sudbury, " " "	3 00
HEIFERS.	
George M. Barrett, Concord, best milch heifer,	\$8 00
Leonard Hoar, Lincoln, best two years old,	5 00
William Spencer, Lowell, best yearling,	4 00
Jos. Harwood, Littleton, best heifer calf,	4 00
HORSES.	
Best breeding mare and colt, J. Derby, Jr., Concord,	\$5 00
Best four or five years old colt, broken to harness,	
T. H. Sweetser, Reading,	5 00
Best two year old, G. O. Durkee, Littleton,	5 00
Best yearling, Elijah Wood, Jr., Concord,	5 00
SWINE.	
Best boar, Josiah Bigelow, Groton,	\$6 00
Best sow, A. G. Sheldon, Wilmington,	6 00
Best pigs, Abner Haven, Framingham, two premiums,	2 and 5 00
POULTRY.	
Albert L. Giles, Lincoln, turkies,	\$2 00
William Wheeler, Concord, best coop of fowls,	3 00
George M. Barrett, Concord, next best,	2 00
BREAD—BY MARRIED WOMEN.	
Mrs. S. F. Kelsey,	\$4 00
" George Clark,	2 00
" O. W. Goodnow,	1 00
UNMARRIED.	
Miss Caroline Melvin,	\$4 00
" R. J. Fales,	2 00
" Rebecca Wheeler,	1 00
HOUSEHOLD MANUFACTURES.	
Mrs. Paribo, on 1 wrought dress, Concord,	50
M. J. Bigelow, 1 Gothic chair, " "	1 00

Fanny Bowers, 1 skirt,	50
Lucy Tolman, 1 tidy,	25
Eliza A. Conant, wrought muslin,	25
A. J. Tolman, 2 quilts,	50
Augusta Thayer, 1 pair slippers,	25
Caroline Adams, 1 sofa-cushion,	25
Isabella Dennis, 2 collars,	50
Helen R. Read, travelling bag, Woburn,	50
Clara Gowing, skirt and pin-cushion,	50
F. Winn, 1 pair shoes, Concord,	25
Mary A. Moore, quilt and collar, Chelmsford,	75
Mrs. G. M. Barrett, 8 rolls carpet, Concord,	2 00
Rebecca Barrett, slippers and embroidery,	1 00
Mrs. N. H. Warren, embroidered dress,	1 00
P. P. Rodgers, 6 pair hose, Woburn,	50
Rebecca Rodgers, 6 pair do.,	50
Susan Rodgers, 6 pair do.,	50
Susan Parker, quilt, Lincoln,	50
Eliza Pierce, 1 pair slippers, Concord,	25
Polly Hartwell, bed spread, Lincoln,	50
H. Pierce, picture-frame, Lexington,	25
M. J. Smith, pencil drawing, &c., Waltham,	1 00
Eber G. Gleason, wrought chair, Concord,	1 50
Rebecca Melvin, 2 pair hose,	25
C. Hall, embroidered skirt, Carlisle,	50
Mrs. S. D. Hunt, 1 tidy, Concord,	25
A. M. Stacy, crochet collar,	50
H. H. Robinson, skirt and mantle,	1 00
H. Tarbell, 3 blankets,	1 00
Mrs. Sampson Mason, 1 chain,	1 00
Mrs. G. L. Prescott, embroidered scarf, &c., Concord,	50
Anna Draper, embroidered collar, Charlestown,	50
Barker, embroidered blanket,	25
M. B. Prescott, lamp chat, Acton,	25
H. G. Rice, sofa pillow, Acton,	25
Sarah C. Rice, slippers, Concord,	25
E. B. French, quilt, Tewksbury,	50
Sarah M. Chapin, tidy, rug, &c., Concord,	25
E. Wheeler, 6 pair hose,	75
J. M. Smith, wrought skirt,	1 00
Ann Hastings, 4 chairs and embroidery, Concord,	1 00
A. C. Brown, wrought collar, Framingham,	25
H. H. Hoar, under-sleeves, Concord,	25
S. C. Hastings, slippers, Concord,	25
M. J. Jones, embroidered slippers, Concord,	25
Harriet Heald, embroidery, Carlisle,	50
John Brown, hose and mitts, Concord,	50
Sarah C. Brown, picture-frame, &c., Concord,	1 00
Matilda C. Brown, rigorlet, &c., Concord,	50
Miss Elizabeth Brown, rigorlet, &c., Concord,	50
Miss Sarah W. Heywood, worsted hose, Concord,	50
Miss Margaret B. Rice, 1 chain, Concord,	1 00
Miss E. D. Church, wrought slippers, Concord,	25
Miss H. E. Cowdry, 1 shirt, Acton,	25
Miss Sarah A. Hilliard, embroidered skirt, Acton,	50
Mrs. Jonas C. Hastings, embroidery and flowers, Concord,	1 00
J. Gleason, millinery, Concord,	2 00
E. H. Raymond, embroidered skirt, Littleton,	75
Amelia Johnson, wax flowers, Charlestown,	1 00
Mrs. George Bingham, rug, Lowell,	1 00
Sarah E. Rice, fancy box, Concord,	25
Silas B. Wilde, specimen of printing, Concord,	1 00
Warren B. Ball, (lustre) Concord,	1 00
Susan B. Foster, quilt, Tewksbury,	50

APPLES AND PEARS.

James Eustis, South Reading, apples,	38 00
John B. Moore, Concord, apples,	6 00
W. F. Conant, Acton, apples,	4 00
Asa Clement, Dracut, apples,	3 00
Robert Chaffin, Acton, apples,	2 00
W. W. Wheldon, Concord, best single dish,	3 00
Converse Smith, Waltham, 2d	2 00
Charles E. Giles, Lincoln, 3d	1 00
Hovey & Co., Cambridge—pears, 5 varieties,	6 00
Josiah Stickney, Watertown,	4 00
Hovey & Co., Cambridge, best single dish,	4 00
A. G. Fay, Concord, next best,	3 00
Josiah Stickney, Watertown, next,	2 00
David Loring, Concord, next,	1 00

VEGETABLES.

John B. Moore, Concord,	38 00
Nathan Barrett,	5 00
O. B. Clark,	4 00
Andrew Wellington, Lexington,	3 00
John Reynolds, Concord,	2 00
James F. Brown,	1 00
S. Bird, Framingham,	1 00

And sums of less than one dollar to twenty-three other persons.

BUTTER.

A. G. Sheldon, Wilmington, set of silver spoons.	
John Kimball, Littleton,	32 50
Sherebiah Spalding, Chelmsford,	2 00
Asa G. Sheldon, Wilmington,	1 50
Joshua Harnden, Billerica,	1 00

INVENTIONS.

Wheeler, Acton, washing machine,	38 00
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For the New England Farmer.

HAWAIIAN AGRICULTURE.

MAKAWAO MAUI, HAWAIIAN ISLANDS, }
June 19th, 1854. }

EDITORS OF FARMER:—Gentlemen,—I wrote you in January, giving you, if I rightly remember, some items of a report which I last year sent down to the chairman of the committee on wheat raising. Another meeting of the Hawaiian Agricultural Society has, I suppose, been held lately at Honolulu, the metropolis of the islands. In good time we may have an Agricultural Society on Maui. If so, you shall hear.

In the mean time, let me tell you of our labors, and trials, and encouragements, in agricultural pursuits in my own neighborhood, where more is doing, I presume, than on all the islands besides. I mean in labors strictly agricultural.

1. *Labors.* I think I have, in writing you, remarked on the seeming reluctance of most men from foreign countries to engage in agricultural pursuits. The passion for sudden riches has been so strong in the bosoms of nine-tenths of these men, that speculation, not manual labor, has been the order of the day. In raising wheat I was nearly alone, so far as foreigners were concerned, for several years; and but for the hope of inducing the people to engage in this important business, I might have abandoned it myself, as my wheat cost me more than foreign flour. But I was enabled to hold on through "good report and evil report," and I am glad I did so, for I am now able to report a great increase of labor bestowed on wheat raising.

Of some 3000 bushels of this grain raised in 1853, not less than 1000 were lost from inability to thresh it, only one horse-power being in the place till March. Of some 400 acres sown, 2 or 300 were lost by the cut worm, and chiefly owing to late sowing. We have, then, about 1100 acres of wheat in this and a neighboring district. It is all in this neighborhood. Two or three hundred acres have been harvested, and some of it threshed and ground. You can see from this that there must have been an increase of labor. I am happy to say that this is true. As many as sixteen foreigners have this year engaged in the wheat raising business, and they have all done well, very well indeed. Quite a number of Hawaiians in this neighborhood have raised wheat, and one of them may have 1500 bushels. Just now native men, women and children, are busily engaged reaping and binding. One or more has learned to cradle, and others will soon learn. One of Hussey's reapers is marching through a wheat field with a velocity which perfectly astounds the natives—more, even, than did the execution of the sickle ten years ago, which began there to supersede the *caa-knife*. So you see the labors of the husbandmen are increasing. I am not without hope that it may, ere long, be as honorable to raise wheat as it is to measure tape, or weigh sugar and rice.

2. *Trials.* It would have been foolish in the extreme to expect success in agriculture without trials or drawbacks. They have not been greater than with you, or than the trials connected with the manufacture of sugar. One trial some of my neighbors have experienced; on finding that wheat will not flourish on half cultivated ground—that they cannot sow by the way-

side, or among thorns, and after all gather an hundred fold. I am not the man, however, who regards this as a trial. It is a presumptuous tempting of God to expect such a result from so lazy or careless a method of doing business. I used to hear, when a boy, the boast of a neighbor that he had a corn-field which would grow without hoeing. But he was a notorious lazy man, and his corn was not sought by other farmers for this remarkable quality. When corn will grow and fruitfully bring forth without being hoed, wheat may grow on half-plowed land. I pity no man who mourns over a stunted crop of grain cast on untilled soil. I think the experiment will not again be tried among us.

Our greatest trial in raising wheat is found in the ravages of the cut worm and caterpillar. We know not how to save our fields from the ravages of these enemies. We cannot destroy them. We cannot calculate when they will make their appearance. Nothing remains for us but to experiment—to sow and plant, and if cut down, to sow and plant again. About the first of April last, I finished sowing wheat, two fields of twelve and fifteen acres remaining, for which I had no seed till this late day. One year I sowed all in April, and lost none by the worm. This year I lost nearly all of the 15 acre lot, and about a half of the other. In May I sowed again, not much expecting any return, but doing so as an experiment. On the one piece, the 15 acres, I lost all, but saved two-thirds of the 12 acre piece—that is, it looks well at present and may do well. In May also, finding the last sowing of wheat destroyed, I planted the field with corn, and though it came up well, yet there are scarcely fifty hills remaining. I am about to replant it. Thus it is with us from year to year. But for this trouble, we could raise any thing in the shape of grain and vegetables. As it is, we are sadly tried, and seldom have beans, or peas, or turnips, or beets, or onions.

We apprehend something of a trial in reference to a market, or I should have said, in reference to the manufacture of our wheat and its sale. Heretofore we have had nothing but hand-mills, and till quite lately no means of bolting. Now there is erected a fine flouring mill; but it is some 70 miles distant, instead of being at Wailuku, some 15 miles distant, in our own neighborhood. The mill is owned by a steam company, who invested their money there rather than loan it at 12 per cent. Of course, they desire to make money faster than by loaning at the above rate. In a word, I regard the mill in the light of a speculation. These men who compose the steam company flouring mill, may be no more eager for money-making than other speculators at the islands. I do not think them worse. But they have this advantage—there is no competition in this business. There is no other mill at the islands. So that, for aught I see, they will have the greater part of the wheat at their own price; whereas, had we a mill at Wailuku, there would be so much of a competition that the producers of wheat would stand a much better chance to do well in the sale of their grain. Do you say, let the owners of wheat hold on to it till a price shall be offered that shall divide the profits between the producers and the company? Some may be able to do so, and probably will, but the

majority cannot. There being no barns, and few houses any thing better than grass ones, the natives and most of the foreigners must sell, and how they will succeed remains to be seen. It is a great trial to be obliged to buy and sell where there is no competition.

3. *Encouragements* to continue in agricultural labors. 'Tis encouraging that the experiment has been tried till all are satisfied that this region is admirably adapted to the raising of wheat. So also of corn and other vegetables. Almost any thing, for that matter, if we can dodge the cut worm. 'Tis encouraging to perceive that we can raise cheap bread, so that should we be unable to obtain the staff of life from the old homestead, we can have a supply at our own doors. Indeed, I hope that we shall be able to do this at any rate, also to furnish whale ships and other vessels with fresh and sweet flour, more conducive to health than most which has hitherto been consumed in the Pacific. To me it is, moreover, very encouraging that the raising of wheat is awakening the Hawaiians to a sense of the importance of industrious habits. This is a fact which greatly cheers me; and in the crop of wheat now being harvested, especially the 200 acres belonging to the people, I am more than rewarded for all the toil and sacrifice to which I have submitted.

I hope, also, if spared to see greater improvements than these, wheat raising will doubtless go ahead. I shall not need to say more on the subject of raising this grain. I think my people will sow at least 500 acres the coming year. I hear it said, by some of the foreigners, that 5,000 acres will be sown in this vicinity. I doubt this somewhat. But wheat will be both plenty and cheap. But I want to see more variety. I want to see small farms, and each sowed to wheat, oats and barley; planted with corns and beans; with Irish and sweet potatoes; and adorned with a vegetable garden, wherein shall be found beets, onions, cabbages, melons, squashes, cucumbers, &c. &c. If I am spared, I mean to try my hand, though 'tis a maimed one, in this line. And, as you kindly suggested sending me something in the book line that might aid me, though nothing has yet reached me, may I ask you to send me fresh seed of various kinds, put up in the best style? I have some fears that nothing sent round the Cape will do well, though I may be mistaken. Judge Lee last year received from Mr. Johnson, of the New York Agricultural Society, a large number of specimen wheat, oats and barley, but scarcely a seed came up—not because they were planted late, but because they had no germinating quality. Please think of me and my people, and, if consistent, send something of the kind; so of any book which you can spare.

Another thing—the cut worm. Can you help us to destroy this enemy of all Hawaiian cultivation? The man who can help us to eradicate this worm, or destroy its eggs, will do us the greatest of earthly favors. Perhaps you have some book which treats of insects, and the means to save crops from their ravages. But for this one drawback, the cut worm and caterpillar, I see not why we could not raise any thing we need for our comfort, both tropical and temperate productions. Nothing that we have tried seems to make the least impression upon them. Lime

ashes, snuff, tobacco, all are alike inefficacious. If spared, I will, by and by, send you a drawing of the worm, and such description as I can give.

I find that we can preserve wheat, after threshing, from the *weevil* in a good degree. In November last I procured the threshing of some 340 bushels of wheat. This had been stacked two months or more; consequently, some of the outward bundles, having been wet with the fall rains, contained a few weevils. I threw a cart load of this grain on to the floor of a room, say 24 feet by 18; I then scattered over this two or three shovels of air-slacked lime, and mixed it well, then turned in another load and repeated the lime. It kept admirably, and I think the lime a preservative.

Glad to see that you get on so well in New England in the matter of agriculture. Dear old New England, land of my birth, of my childhood and youth! Greatly do I desire thy prosperity. Well may thy sons be thankful that they were born and cradled among thy hills, instead of first breathing the balmy air of a Southern climate. If I have any hardness, any thing like endurance, I owe it, under God, to having felt the bracing atmosphere of the north, and to having become inured to the tug of labor on the hill sides and in the valleys of Vermont. The Lord greatly bless all who still dwell in that goodly land. May He make you all intelligent, industrious, humble and holy men and women. And while you all rejoice in the boon of holy freedom, may you pity, pray and labor for all who groan in bondage, or who are the slaves of superstition and sin. While you labor to make the fields of New England "laugh with abundance," toil also as you are able to hasten the time when this earth shall exult to see its thirsty cause repealed, till

"The various seasons, woven into one,
And that one season an eternal Spring,
The garden fears no blight and needs no fence,
For there is none to covet—all are full."

Yours truly, J. S. GREEN.

REMARKS.—It seems that *early sowing* prevented the ravages of the weevil. If so, why not pursue that practice! Have you tried salt? We will improve the earliest opportunity to send you agricultural books, but cannot send seeds.

For the New England Farmer.

BACHELORS BADLY BERATED.

FRIEND BROWN:—Another interesting and readable article from "A. G. C.," up there where great men are raised. I have more than once been amused and instructed by the wise and witty writings of the above clever correspondent, but in his last article he gave poor old bachelors such a powerful pesting, that, thinking possibly none had survived the chastisement, I thought I would volunteer a word in defence of the defunct order of superannuated simpletons.

Who was ever so wild in his imaginations as to suppose that flowers ever did or could bloom in an old bachelor's garden? Notwithstanding Whittier, freedom's bachelor bard, scatters around the hearthstones of American farmers and free-men the rich wreaths of poesy, the beauty of which will never fade, and the sweet spirit of which will never die. Who was ever so simple as

to look for fair fruit in the bachelor's bower, when the bachelor blacksmith Burritt is devoting the energies of an earnest life in sowing the heavenly seeds of peace and human brotherhood throughout the nations of the world, which will yet fructify and yield the sweetest and most joyful fruits that the human heart can contain. Who ever superstitiously supposed that a bewildered bachelor was competent to take proper care of cattle, horses, hogs and hens, while Sumner, New England's orator and brow-beaten bachelor, is watching with vigilant eye the sacred interests of men with immortal destinies veiled in the fearful future; and his eloquent tongue pleads powerfully in behalf of the downtrodden, the destitute and forsaken fathers, the mourning mothers, and crying children, the victims of man's inhumanity to his brother man? In short, what Yankee ever gravely guessed that a man could fulfil the true destiny of life and his being, unless he had a wife to boil his broth and sew on his shirt buttons!

BUCKWHEAT.

A few days since we paid 62½ cents for a bag of Buckwheat flour which contained but 10 lbs., and we can seldom obtain a really good article at a much lower price. The reason for this high price is that there is a short supply, as there has been for some years past. Since the recent introduction of improved mills for hulling and grinding this grain, its use has greatly extended, and will continue to extend, and we think that we may put buckwheat down as one of the most remunerating crops that can be raised by the farmer. It is easily cultivated, and it is not yet too late to sow it with a prospect of a good yield. It may even be sown as late as July 4th, in this latitude, though earlier is preferable. The following is from the *Maine Farmer*, published several degrees north of New York:

"It has been said that buckwheat held the same position among grains, that the donkey does among animals—useful, but not popular. There are two varieties of buckwheat cultivated in Maine. The smooth common buckwheat, and the rough tartarean buckwheat. This last-named is much cultivated in Aroostook County, and in the adjoining province of New Brunswick. It is much used there for feeding swine and poultry; and all their mills have apparatus for separating the hull from the flour, when they grind it. It is also used for making buckwheat cakes for the table, which when eaten warm, and well coated with maple molasses, are very excellent.

This rough buckwheat was introduced into Kennebec County some fifteen years ago, under the name of Indian wheat, and cultivated more or less by some of our farmers, but it was not very highly appreciated by them, and it was gradually laid aside, and we do not know of any of it being raised here now. We have seen some exceedingly fat pork, which was fed upon nothing but the meal made from this species of buckwheat.

Either of the varieties are profitable, and should be more cultivated among us than they are. They need not be put in very early—indeed it has been found that if sown too early, it does not yield so great a crop as if sown later.

From the middle of June to the fourth of

July, is sufficiently early. We have harvested a good crop of buckwheat in just two months from the day it was sowed. This is getting along pretty fast, but it is best to cut it soon after the kernel begins to change color, and then by trussing it up into small heaps, let it lay and ripen. In this manner, a greater amount of grain is obtained, for the grains which ripen first would shatter out while harvesting, if suffered to remain until the whole were ripe, before being cut. When cut somewhat green, and properly cured, we have found that horses would eat the whole, as readily as they would clover.

We have also found that it made a good fall pasture for hens. By sowing a field of it, and after letting it get sufficiently ripe, cutting it and letting it lie sometime to mature fully, and then turning the hens in, they will do the harvesting or threshing for themselves. They will pick upon it until snow comes, and get very fat without much trouble from you.

When threshed and cleaned, buckwheat also makes good feed for poultry, in the winter. The flour of buckwheat sells as readily as any other flour, and large quantities of it are brought into Maine, in small casks, from New York, and sold to us, when we might raise enough of it in Maine to supply the Union.

For the New England Farmer.

APPLES, &c., IN SAN FRANCISCO.

DEAR SIR:—Enclosed I send you \$2.50, for which please send me a copy of your interesting and valuable paper—the *N. E. Farmer*. I like it for its variety, its moral tone, and its independence.

Can scions be sent here in order? But few apples are raised here and those are small, and of inferior quality; yet they make us think of New England orchards; and we wish that California might have such. Large apples are selling at stands at \$1 each.

What is considered the best breed of cows for raising milk? Milk sells here at from 3 bits (37½ cts.) to \$1 per gallon.

What is the price of yearling bulls? and what is the best breed for milk ranches?

A. B. FIFIELD.

San Francisco, California, Sept. 16, 1854.

REMARKS.—We think scions properly packed, might reach San Francisco in condition to grow.

The general opinion with our people is not fixed upon any one particular breed of cows, as more excellent than any other, for the production of milk. Some of our common breed have proved as good as any; we have known a mixture of the Durham with the common mixed breeds to produce large quantities of excellent milk, and so of other mixtures. You must begin at once and breed cows to suit yourself, by selecting those possessing the finest points. Select the bull, also, with equal care. Suffer no crossing as far as your experiments go. Keep the heifer in calf for the first time by a Durham bull, ever after to the same animal, and so of those that go to a Devon, Ayrshire or Alderney. In this way you will soon be able to make just what you want.

THE HORTICULTURIST.

We have been pained upon perusing an article in the October number of the *Horticulturist*, signed, "*A Member of the Massachusetts Horticultural Society*." The writer's cheek should tingle with shame upon reading his production. It seems to us to have been conceived not only in a vindictive, but in a malignant spirit; a spirit and expression more becoming drabs of the "*Five Points*," than a sober and dignified member of the "*Massachusetts Horticultural Society*." It has been pleasant to us to notice so little of this pot-house valor in our agricultural journals, and we had hoped that the whole vocabulary of low and vituperative terms would be left to trading politicians, and those who dabble with them for a little political profit or power. The wholesome teachings of our beautiful art can have had but small influence over a heart capable of uttering so many base and vulgar conceptions, upon so trifling a provocation, if, indeed, there were any at all. In admitting such an article into his columns, Mr. BARRY has greatly erred in judgment, and tarnished the fair fame of his useful and influential journal. We know not who the writer of the disgraceful article is, but if he were our own brother, our rebuke should not be spared.

HOW TO SAVE TOP ONIONS.

The top-onions should be gathered as soon as they are ripe. They are ripe when the top falls down and becomes wilted. When you cut off the top from the onion, if the juice starts in little drops, the onion was not ripe, and would have grown more. If they are suffered to stand long after they are ripe, they will begin to grow again, burst open and divide. New roots will start out, and on pulling, the onion will cling. These roots are sapping the onion, which, together with a new top, will spoil the plant. If you should cook such an onion, you would say it is strong, dry and tough. Whereas, if gathered at the right time, they are very juicy, sweet and tender. I would gather them in a dry day, and carry them into a chamber where they should lie until cold weather, when they should be removed to the cellar, and laid in a cool but dry place. If they lie on the ground they will acquire moisture and spoil.

The top-onion seed should also be spread in a dry place until freezing weather is coming. Then they should be put up in bags, and hung in a cool, dry part of the cellar. We have already commenced gathering, and have laid up about forty bushels, some of the ground yielding at the rate of seven hundred bushels to the acre. A neighbor of mine, this year raised at the rate of eight hundred bushels to the acre, and many a one of them measured more than a foot in circumference. His rows on the bed were one foot apart. He might just as well have added one row to every two, without any injury to their growth.

It should be borne in mind by those who would

raise this vegetable, that the two reasons for raising the TOP-ONIONS are, first, that they almost always escape maggots, and they should be set out early. Then the onion gets a start of all the weeds, and of the maggot-fly, and are a sure crop. I have raised them over twenty years, and have never failed.—*Cor. of the Middlebury (Vt.) Reg.*



WEATHER VANE.

The Weather Vane placed on the carriage-house or barn, not only indicates the direction of the wind, but is really ornamental. They are sometimes in the form of a horse, an ox, a fish or an arrow, and may be procured at prices varying from two or three dollars to twenty-five.

For the New England Farmer.

CRANBERRIES ON UPLANDS.

I was passing by Mr. Needham's cranberry patch, this afternoon, and inquired the result of his culture the present season. He informed me that he has gathered 83 bushels on one hundred rods of land, all of which had sold readily at three dollars or more per bushel. In consequence of the drought the berries were not so large as they otherwise would have been. He thinks several bushels more can be gathered; and has no doubt, with a fair season for moisture, the crop would have equalled a bushel to a square rod. His vines appear to be in fine condition, and he is satisfied to continue and extend the culture of the cranberry. On the Cape, it appears by the statements

of Mr. Secretary Flint, this business is carried on extensively. I know of no one who has succeeded so well, for several years in succession, in the County of Essex, as Mr. E. Needham of Danvers.

October 9th, 1854.

PHOSPHATE OF LIME.

This substance, commonly called bone-earth, because a constituent of the inorganic substances of animals, is now receiving a large share of attention from Agriculturists, as affording the cheapest and best fertilizing agent for plants—particularly the grains, beans, peas, and lintils. Within a few years it has become an article of commerce, under the name of Guano, the excrement of innumerable flocks of birds; and more recently, by the name *Super-Phosphate of Lime*, being either a pure phosphate of lime, or an admixture of this substance with other agents, as experience has proved necessary. A soil, totally deficient in lime, would not produce these plants above mentioned; and consequently we find the lime is as indispensable to the life of many plants, as common salt is for that of animals. Phosphate of Lime (Phosphoric acid and lime) is now being manufactured on a large scale in New Jersey, under the supervision of Prof. Mapes, and is put up in various quantities for the market; and, as we learn by an advertisement in the *Working Farmer*, is afforded at the rate of \$50 for the ton of 2000 lbs., being much less than the price at which it can be manufactured by individuals for their use.

Prof. Mapes says in the September number:—"We have applied it to one field, on which are planted 60,000 cabbages, all of which are in a most flourishing condition, and fully equal those raised in the richest and oldest soil. This field was plowed in June, being the first time for many years. It was an old pasture, overrun with weeds and foul grasses and entirely out of heart. We applied 250 lbs. broadcast per acre of the Improved Super-phosphate of Lime, and after putting out the plants, at the first hoeing gave 250 lbs. more, making in all 500 lbs. at the cost of \$12.50 per acre, and we state confidently that this will give twelve thousand merchantable cabbages per acre.

Those who have used the manure on grass, wheat, corn, &c., are more than delighted with its effects, while for turnips the results are still more wonderful. It hurries their growth so rapidly, as to force them beyond the fly and ensure their perfection at an early date."—*Farmer and Mechanic.*

AGRICULTURAL IMPLEMENTS.—We notice that the committee on Agricultural Implements, in the Norfolk County Society, awarded for the best and largest assortment of Agricultural implements, to Henry Partridge, Jr., of Medfield, \$15. For the best specimen of Agricultural Implements, manufactured in the county, to the same, 1st premium of \$6.

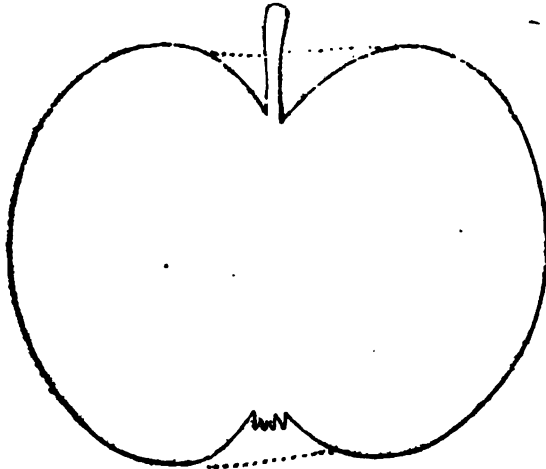
Nothing begets confidence sooner than punctuality. Nothing so well becomes true feminine beauty as simplicity.

TOLMAN'S SWEETING.

Sweet apples are fast becoming more highly valued than they have been heretofore, both for the table, and as food for swine and milch cows. A great many experiments have been made with them in feeding these animals, and have resulted favorably. Boiled with pumpkins and mixed with meal, they are excellent in fattening swine. Fed judiciously to milch cows, they increase the

milk, and keep the animal in a healthy condition. Some persons value them as highly as they do carrots for horses; we know that horses are fond of them, and see no reason why they may not be profitably raised for that use.

The sweeting figured above, according to Downing's account of it, is scarcely second-rate as a table fruit, but it is one of the most popular of the orchard sorts, from its great productiveness, its



value as food for swine and cattle, as well as for baking. From nearly globular. Skin, when fully ripe, whitish yellow, with a soft blush on one side. Stalk rather long and slender, inclining to one side, and inserted in a rather wide, shallow, but regular cavity. Calyx set in a small basin, slightly depressed. Flesh quite white, rather firm, fine-grained, with a rich, sweet flavor. November to April. This fruit, a native of Rhode Island, considerably resembles the *Danvers*' Winter Sweet of this State.

ONE OF THE HORSES.—"The Yankee Horse-Swapper in Old Kentucky" must have been put into the "Drawer" with some ultimate design upon the risibles of the readers of its multifarious contents:

The Kentuckian, ready for a trade, exchanges his "Sorrel" for the pedler's "Old Grey;" but finding the latter indisposed to move a peg after he has secured him, he denounces the Yankee as a swindler, who only laughs at and tantalizes him in return.

Presently the cute pedler mounts his prize, but "Sorrel" is as immovable as the Mammoth Cave. After trying a long time in vain to start the obstinate animal, the Kentuckian consoles him with:

"Stranger, you kin start him, ef you'll only bring some shavin's and kindle a fire under him! That's the way I get him going in the mornings!"

For the New England Farmer.

THE ONE ACRE FARM.

OR, CURE FOR HARD TIMES.

BY ICENABOD ROE.

"How much land have you got here in your lot, Mr. Briggs?"

"I have one acre."

"One acre! and here you are taking the *New England Farmer*, the *Cultivator*, *Hovey's Magazine* and the *Horticulturist*, and all because you have one acre of ground! How many such papers would you have to take if you had a hundred acres?"

"I shouldn't probably need any more than I take now; you know, Mr. Chapman, one can 'go through with all the motions' on one acre as well as on a hundred."

"A man can throw away money without any, if he has a mind to. For all the good you get from such periodicals, you might as well, probably, throw the money they cost into the fire; they are nothing but humbugs."

"I pay two dollars for the *New England Farmer*, one dollar for the *Cultivator*, three dollars for the *Horticulturist*, and two dollars for *Hovey's Magazine*—in all eight dollars."

"Eight dollars! enough to buy a 'tip-top' barrel of flour, and a leg of bacon; and then if you read these periodicals, there is twice the amount of the money spent in time reading them."

"I do usually read or hear read, almost every word there is in them; my boys and I take turns

in reading, and one reads aloud while the rest work."

"Complete nonsense! no wonder your shop don't turn out any more boots in a day, than it does!"

"Perhaps we don't do as great days' works, some days, as some of our neighbors, but I guess that in the course of the year, we turn out as many according to the hands at-work, as most do."

"I suppose it is out of these publications you get your foolish notions about so many kinds of fruit trees. One of my boys came home a while ago, and said Mr. Briggs had got lots and lots of fruit trees and such things, that cost, I don't know how much, and wanted me to buy some grape vines, pear trees, and so on. I told him it was all foolishness and not to let me hear him say anything about spending money so foolishly. You have, I dare say, laid out ten or fifteen dollars, this spring."

"Yes nearly as much again; I have laid out twenty-five dollars for trees and garden fruits."

"Twenty-five dollars! I wonder you are not on the town, or in jail at least, before now."

"I'm not afraid of either; I'll bet you the twenty-five dollars, I'll sell you that amount of fruit from those things for which I paid the twenty-five dollars, in five years!"

"Done! I'll stand you; so your trees will cost you fifty dollars sure, in money, besides the time thrown away in setting them out and taking care of them."

"As for the time spent in setting them out, or taking care of them, it is as good exercise as playing ball, wicket, or anything else. While we were setting them out, one of your boys came to get my boys to go over to Mr. Moody's, where he said was to be a great time playing ball; and I have no doubt, your boys spend just as much time playing, as mine do with our trees and so forth; and then something is done, but in playing, the strength is all laid out for nothing."

"Well, it don't cost anything to play ball, but trees cost money."

The foregoing conversation occurred in the shop between two neighbors, both boot-makers, in a town not more than thirty miles from Boston.

Mr. Briggs, in whose shop the conversation took place, was a man of more than ordinary intelligence for one of his advantages and circumstances in life. He had been a poor boy, and by industry, observation and economy, had worked his way on in life and reared and well educated a family of children, who, like himself, were industrious and steady. For the few years past, he had become interested in horticulture, and both for exercise and amusement, had turned his attention to cultivating his "one acre farm." His attention was first called to this, by means of a "back number" of the *New England Farmer* which was put round some things bought at the store. Mr. Briggs found this so interesting, that he purchased another number at the periodical depot, and then he became a "regular subscriber." His sons soon became interested in the same direction, and the interest of the father and sons increased to the pitch indicated in the foregoing conversation.

In time, every inch of that acre of ground was "brought under the spade," and almost every

"best" variety of fruits had a place there, and the father and sons found pleasure and profit in the garden after being cooped up in the shop till the "stent" was done, and the exercise was far more profitable than the spasmodic, violent exercise taken in games.

Mr. Chapman, the other neighbor, was a man of the "common stamp." He looked upon everything new or uncommon as "folly" and "nonsense" and was ready to sneer at every one who stepped aside from the common track. It looked simply silly to him, to see a man stay at home from "muster" or "training" or "shows" and spend his time in cultivating a garden; or, instead of loitering away the evening at the store, smoking, and hearing or telling a deal of nothing or worse, to spend the evenings at home, reading such "nonsense" as the *Farmer* and *Horticulturist* affords.

Years pass and Mr. Briggs' "one acre farm" shows that he and his boys have not read "the papers" in vain. They had learned how to "set out" a tree, and how to "take care" of it after it was set out. Everything showed it received the right kind of food and care, and straightway began to bring forth fruits meet for good cultivation. In a short time the wants of the family were more than supplied, and the surplus found a ready market with the neighbors at good prices.

Those early apples so rich and tempting, when all other apples were so green and hard! and then such pears; they went as fast as the sun and house could ripen them, at three, four, or five cents apiece. Then such clusters of rich, ripe grapes—too tempting for the coldest to pass without a watering mouth. Mr. Chapman's family were among the best customers for the tempting fruit—first having learned their excellence by the liberality of Mr. Briggs, who never failed to send a specimen of his best to his neighbor.

The fifth season came. It was a fruitful year. Apple, pear, peach, plum, and all other trees, were loaded with fruit. Keeping in mind his conversation with Mr. Chapman, Mr. Briggs had directed his family to set down every cent's worth of fruit sold to Mr. Chapman or his family. This year, as it happened, was a year of "extreme hard times." The boot business was at its lowest ebb; little work and very low wages—and yet the prices of every kind of provisions up to the "highest notch," and money extremely "tight."

But there was one family that did not seem to be in the least affected by the hard times, low prices of labor, high prices of provisions, or the scarcity of money; Mr. Briggs and his two oldest sons, all of them had a little "spare change" to let on short time "with interest" to their needy neighbors.

One day Mr. Chapman, who was short, applied to Mr. Briggs for a "half" for a "quarter," meaning fifty dollars for three months.

"Yes," said Mr. Briggs, "I have a 'half' or a 'whole,' just as you like."

"What, a hundred dollars by you these times! I don't see how it comes. You and your boys don't work any harder than I and my boys do, and we can hardly get along; we are as saving and pinching as can be, too; 'times are so dreadful hard,' and everything a family has to buy is so dreadful high, and wages so low; potatoes, a dollar a bushel, beef, fifteen cents a pound, pork,

sixteen cents, eggs, twenty-five cents a dozen, and flour, ten or twelve dollars a barrel! How can a man live?"

"It won't be hardly fair for me to ask you for that twenty-five dollars, now, will it?"

"Twenty-five dollars! What do you mean? I don't understand you!"

"Don't you recollect we have a bet between us about the price of some fruit trees I bought five years ago next spring?"

"Ah, I do remember something about it. You were to give me twenty-five dollars if you didn't get your twenty-five dollars back from me for the products of those trees and things! It will come very handy just now."

"Don't be too fast, neighbor! I am afraid it won't come very handy just now." That was what I was dunning you for, that twenty-five dollars!"

"What! you don't pretend to say we have had twenty-five dollars worth of stuff from your garden?"

"More than that from that very twenty-five dollars' worth of trees and other things! Here is an account of everything you have bought and paid for; of course, it don't include what I have sent you, gratis."

"And you have certainly not been stingy. Why, this bill amounts to thirty-seven dollars! it is not possible!"

"It is just so; you have had over twenty bushels of apples, and three bushels of pears, and those alone come to twenty-five dollars."

"I own up the 'corn;' draw the note for seventy-five."

"No, I guess we will let that twenty-five go. I only mention it to show you that there may be good sense in new things, sometimes. Now I will bet the twenty-five dollars over again, that my store-bill has not been, the past season, half as large as yours, though I have had one the more in my family."

"If I had not been so badly taken in before, I would stand you; but I guess it won't be safe."

"We have raised our own potatoes, corn, peas, beans, and all other garden vegetables. Our eggs are always fresh and in abundance from the nest; and for more than two years we have not been without ripe fresh fruit."

"How can that be?"

"Well, by the first of June we have strawberries ripe, and soon after, cherries; then raspberries, currants, gooseberries, and so forth; and long before these are gone, the early apples, pears and peaches; then, grapes, later pears and apples; and these continue all winter, and apples till July, when the early fruits again connect the luscious circle!"

"Well, I declare, that is something I never thought of; but it takes so much time and bother to get these things started—then it is an everlasting job to take care of them."

"It needs no more time and money than you throw away on things that amount to nothing at all, and with abundance of fruit, you save the expense of a heavy meat bill, which is not healthy in hot weather. No doctor has been called to step feet into my door for over four years past! Fresh, ripe fruits are sure remedies for all ailments, and they are not hard to take."

Mr. Chapman put the "fifty" into his "weasel-skin," and left with a "flea in his ear."

A. B. B.

EXTRACTS AND REPLIES.

EXPERIMENT IN BARKING A TREE.

MR. BROWN:—I give you the result of an experiment of cutting away the bark around the limb of a large old apple tree, as recommended, I think, in your paper, five years ago, 1849. I then cut the bark twice around the limb $\frac{1}{4}$ inch apart, taking away the bark. The result was, the first year after, that limb bore fruit, whilst the rest of the tree did not; it bore three successive years, failed last year, and died this.

JOHN M. MERRILL.

Bristol, N. H., 1854.

ICE HOUSES—OLD PASTURES.

MR. EDITOR:—I wish to inquire through the medium of your valuable paper, in regard to the best method of constructing ice houses. I wish to keep ice the year round, or without fail until the first of October, and have not yet been able.

How should an ice house be constructed, and what of?

What should be its situation in regard to other buildings?

You will confer a favor upon an old subscriber by giving full information on this point, as I consider ice of great use in the management of a dairy.

What is the best method of reclaiming old pastures? whether by top dressing or otherwise?
Cheshire Co., Oct. 6, 1854. T.

REMARKS.—In vol. 3d of the *New England Farmer* for 1851, at pages 25 and 388, may be found particular directions for the construction of ice houses. Will Mr. L. HURLBUT, of Winchester, Conn., be kind enough to send us an account of one which he has constructed and tested?

In vol. 4 of the *Farmer*, pages 305 and 446, the subject of reclaiming old pastures is thoroughly discussed, and all that we could well say about them may be found there.

FYLER'S BUTTER-WORKING CHURN.

MR. FARMER:—I was at the New Hampshire State Fair, at Keese, and was well pleased with many things, but saw nothing that attracted more attention than about 15 lbs. of butter in the Mechanics' Hall, standing in one of Fyler's butter-working churns, made by Hall & Holmes of Brattleboro', Vt. The butter was all worked, salted and rolled in two rolls in the churn, without being touched with the hands. It was well done and of excellent quality, as hundreds can testify, and I am informed it was all completed in 17 minutes. I am glad to learn that the Committee awarded all to the proprietors, that the rules of the Society would permit. I mention this fact because I have used one of these churns in my dairy during the past season, and know them to be all they are recommended, which is not common in these days.

A NEW ENGLAND FARMER.

Walpole, N. H., 1854.

GREEN GAGE PLUM TREES—CLIMBING ROSES—GRAY-ELLY LAND.

MR. BROWN:—Will you inform me at what price I can procure grafted, well-formed and thrifty Green Gage plum trees, of three years' growth? (a.)

Also, what you consider the choicest variety of Climbing Rose, and at what price I can procure a stock of the same suitable to transplant. By the choicest variety, I mean a high climber, and one whose flowers surpass all others in fulness of leaf, beauty and brilliancy of color? (5.)

What can I do with a little stony patch of land I have, covered with the plant known only to me as the indestructible "House-leek." Not a fig do I care for the stony patch, but they so disfigure my premises, and trouble my vision, I would they were away. (c.)

Respectfully,

Leverett, Mass., Sept. 26, 1854. S. W. B.

REMARKS.—(a.) The price of such plum trees as you want may range from 50 cents to \$1.

(b.) There are a hundred varieties of climbing roses, at least. The one which we should select, might appear indifferent to you. There is a large variety of the Prairie climbers; also of the Multiflora, Hybrid, Evergreen, Bourneault, and Ayrshire. The few kinds common about our dwellings, (and these perhaps are as good as any,) are, among the Prairies, the Baltimore Belle, and Queen of the Prairies; among the Multifloras, the Alba, or White, and the Fragrans; and in the Bourneault, the Red, which is half double, and another which is red and white. But to answer your question more directly, if you desire but one, take the Michigan, or as it is called, the *Queen of the Prairie*. This rose is remarkable for its perfectly hardy growth, flourishing equally as well in Canada at the North, and in Texas at the South. It grows with great rapidity, exceeding all other roses of this family, covering an entire arbor in a short space of time. It blooms, also, after most other summer roses are gone, its flowers occurring in large clusters of different shades.

(c.) Cover your gravelly patch with meadow mud and manure, and plow in—then in the spring sow clover or buckwheat, and when in bloom plow that in. Repeat this operation two or three times, then plow deep, manure highly, and lay down to grass. In two or three years you will get a lawn, by mowing frequently, which is more ornamental than any other one thing about the house.

SCURVY PIGS.

MR. EDITOR:—As you are so liberal in answering the inquiries of the inexperienced, I should be glad to be informed through the columns of your paper, of some way to remove scurvy from pigs badly diseased in that way.

AN INEXPERIENCED FARMER.

Wayland, Sept. 30.

REMARKS.—Wash them clean, and rub slightly with buttermilk or grease; give them a dry bed, always in a warm place, and plenty of wholesome food. We never saw a pig yet so incorrigible as to withstand this treatment, and keep scurvy long.

HOW SHALL I START FOREST TREES!

MR. EDITOR:—I have a piece of old, clean ground, that I think would grow pine timber well if I could get it started from the seed. Will you or some of your correspondents who may know, inform me through your paper how to proceed in procuring the seed, planting, and after management, and oblige
c. w.
Johnson, Vt., 1854.

REMARKS.—Some of the experienced will please reply.

SOWING CLOVER SEED.

FRIEND BROWN:—I wish to inquire through the *Farmer*, respecting sowing clover seed. I have seeded eight acres of good land with herds grass, sowing in September; now can I sow clover early in the spring upon this seeding with advantage to the first crop of hay?

Fall seeding is a "book notion" in this community. Any information upon the subject will oblige others as well as myself.

Brandon, Vt., 1854. E. M. SMITH.

REMARKS.—Sow five or six pounds of clover seed to the acre on the snow late in March. You can see the seed on the snow, and will be able to sow it quite even.

WARTS ON CATTLE.

MR. EDITOR:—I should be glad to receive as soon as convenient, an answer to these two inquiries which I wish to make in your columns.

1. What is the cause of warts on cattle?
2. What is the remedy?

I have two beautiful heifers whose milk veins are entirely covered with what I suppose to be warts, and the same have made their appearance nearly all over the surface of the belly, and also upon the udder. A part of them might be removed with a knife, but a larger part of them cover much surface while they project but slightly.

A few years ago, these same kind of warts so troubled one of my heifers that I was obliged to kill her, and if you can give a cause and a cure for this disease you will do a great favor to your reader.

E. F. B.

Dedham, Oct., 1854.

REMARKS.—The cause of warts on cattle is not clearly known—perhaps it is the want of proper action in the skin. The knife should not be used, only to pare them slightly before applying the caustery. A pencil of the nitrate of silver touched to them daily, for several days, will often disperse them. We have found homœopathic treatment highly successful with horses and cattle. For dry warts give *dulcamara*, and in some cases *sulphur*; for ulcerated warts, *arsenicum*.

A REMEDY FOR MAGGOTS IN ONIONS.

When the onions are first affected, sprinkle them with ley made of ashes; about half as strong as is commonly used for soap. It has been found very effectual.

ORIGIN OF THE POTATO.—So far as is known, the root is indigenous to this country, whence it

was carried to England, in 1586, by Sir Walter Raleigh, and planted in his garden. Not being sufficiently acquainted with the plant, he was near consigning it to destruction in consequence of finding the potato apple, or fruit of the plant, bitter and unpalatable, and it was in digging them up that the edible potato was discovered. The plant thrived rapidly in the British Isles, but especially in Ireland. The potato alluded to in Shakespeare, as being common in the reign of Queen Elizabeth, was the convolvulus batata, of which Burnett says:—"Not only were its tender roots, and young leaves and shoots, eaten as pot-herbs, but they were candied, and made into various sweet-meats."

DOMESTIC GUANO.

EDITORS OF COUNTRY GENTLEMEN:—I wish to say a few things more about guano. I suppose the present annual importation of guano into the United States will not fall much short of two hundred thousand tons, at an expense of at least ten million of dollars. Think of that, gentlemen farmers, ten million of dollars annually exported from the United States for foreign manures. But this two hundred thousand tons, imported into the United States, is but a mere *mile* of what is demanded by the American farmers. Probably not one farmer in 100,000 is supplied from this source. But, if these numbers startle you, then take the least possible computation that facts will allow, and say that we need *one thousand* times more instead of one hundred thousand, to supply the present demand, and then it will require two hundred million tons, at an expense of *ten or twelve* thousand million of dollars. These figures, gentlemen, will alarm you; but be assured it is no fanciful sketch. Let all the American farmers be supplied with foreign manures according to their necessities, as the privileged farmers are, and more than this would be realized. But what are the American farmers to do? The entire lands of the entire country are rapidly depreciating in fertility. To crop them as the farmers now do is a ruinous course. But to buy foreign manures would only end in national bankruptcy.

Come, now, let us reason together on the subject, and see what can be done. Every family of four persons, might with no trouble or expense, except to keep neat and clean about the house, manufacture one ton of guano. The excrement of the family, together with the dirty slop, now all wasted, would more than make one ton, whether we regard the quantity or quality of the material. But, if we include in this account, all the materials necessary to absorb all the liquid, the amount would be swelled to two tons, even to every family of four persons. But, if we take the lowest estimate, eight hundred thousand persons might make annually from their own house, two hundred thousand tons of guano, a sum equal to all that is now imported into the United States, at an expense of some ten or twelve millions of dollars. And the excrement of one hog, a cow and a horse, with the poultry-yard, would certainly produce another ton. I do not know exactly the population of the State of New York, but my opinion is that more guano could be manufactured from the families alone, exclusive of all the wasted urine of the animals, than all that is

now imported. My advice to the farmer then is to begin at home. J. L. EDGERTON. Georgia, Vi.—Country Gentleman.

WHY IS A GARDEN FRUITFUL?

The almost universal opinion is, because it is more highly manured than fields, and therefore has a richer soil. Yet this is not always the case. There are other things to be attended to, in order to render the soil prolific. One is to pulverize the soil; though this may seem a small matter to many of our would-be farmers. But it is owing to the finely pulverized condition of the beds of a garden that it possesses a highly absorbent power to attract the moisture of the atmosphere—a source of fertility that many farmers scarcely seem aware that they possess. If the soil of the field was as carefully worked, and fresh earth constantly exposed to the atmosphere, as in the well-attended garden, the land would increase each year in fertility. Let the rule be, plow deep, cultivate well, pulverize lumps and sods, return your straw to the soil, and you may carry off an immense quantity of food, and have fertile soil still. Plants, in their nature, are organized beings. By means of their roots they take up food from the soil, and often the very food which the soil has taken up, by its power of absorption, from the atmosphere, and which power is increased to an almost indefinite extent, by separating the particles of which it is composed. The acts of plowing and harrowing are a part of the process of manuring. The act of stirring the earth, in times of drought, serves as a watering of the plants. The moisture thus absorbed is loaded with fertilizing properties. If, then, you would have your fields as fertile as a garden, you must not depend upon manure alone, but pulverize freely, not upon the surface, but *deep below it*.—*Dollar Newspaper*.

SQUIRRELS IN THE WOODS.

There are few things more pleasing than to lie upon the grass on a sunny day in summer, and watch the squirrels in the trees above you. Peering up, you will spy, on one of the tree stems, a little brown, monkey-like-looking rat, with a sort of rabbit's head, and a foxy tail as long as its body, and curling over it, and *ecce* my lord squirrel! Down he comes, leaping from branch to branch, clawing, racing so fast, and now he reaches the turf and sits upon his hind legs, and looks this way and that, and listens. Do not move, or he is off; do not wink so much as an eyelid. "All right?" his merry brown eyes seem to ask. Yes, all right; for a nut drops from between his teeth into his fore paws, and giving his mighty consequential tail an extra curl, he makes ready for breakfast. That is another sight—the way in which a squirrel deals with a nut. First of all he shakes and rattles it, that he may be sure there is something inside; then he twists it round and round in his paws, till he gets the narrow end uppermost, for he knows that at the upper end the shell is the thinnest; then he begins to grate and file till he has worked his way through, getting noisier and noisier as the hole grows bigger; and then come intervals of quiet, which mean that his teeth are in the kernel, and that he is eating all within reach; for a squirrel never has

patience to wait till the kernel is clean out; he eats it by instalments in the shell, and trust him for getting the whole of it! Well, after the nut, he will perhaps pick the bones of an apple, if there be one within reach, and when he has had his fill he will wash his face with his paws, and his paws with his face, and, feeling quite clean and spruce and comfortable, he will roll over on the turf, making funny little noises, and giving queer little jumps, and then away! up the next tree stem, clawing, leaping, swinging, so fast—up and up, till your neck is out of joint watching him, and he is lost among the leaves.

N. H. STATE FAIR.

We are not able, in the present crowded state of our columns, to give a detailed account of the State Fair at Keene, N. H. In some particulars, the Exhibition surpassed anything we have seen, and especially in its Working Oxen: these were numerous, of beautiful symmetry and in high condition. Indeed, they attracted the attention of all who beheld them. A building 400 feet in length was well filled with manufactured articles, fruits, vegetables, &c. The trotting course was enlivened by some fine animals, and the grounds, as a whole, unsurpassed by any we have seen. The attendance was large during the fair weather. On Thursday, the Address was delivered from the Judge's stand by the Editor of this paper, to an attentive audience of more than 5,000 people, and is spoken of as follows by the *Boston Chronicle*.

"At half-past two o'clock the address was commenced from the Judge's stand. Mr. Brown laid down three propositions, namely:—That the present was the most auspicious period for agricultural improvement; that there were means specially calculated to promote that end; and the nature of these means. These were forcibly illustrated with great practical force, and were valuable to a degree unusually realized at this Fair. The sentiments and opinions delivered by Mr. Brown were very enthusiastically received."

Our thanks are due the officers of the Society for their kind attentions, and especially to Wm. P. WHEELER, Esq., of Keene, for the hospitalities of his house, during our stay at the Fair.

For the New England Farmer.

SEPTEMBER BLOSSOMS.

MR. BROWN:—Inclosed I send you an *apple blossom*, and might have sent you many more this day, (26th Sept.) taken from the tree, *one limb* of which has been in full bloom for several days. Cannot some of the *wise ones* give us the science of this young wonder! There is but a single unusual circumstance to be considered in investigating the matter, viz: this blossoming limb was, about five weeks since, exposed to the heat of some burning brush, so as to kill or turn brown, but not to burn its leaves. Other trees, similarly dealt with, show no signs of putting forth blossoms.

I am reminded, in this connection, of a circum-

stance which we, the sufferers, think worthy of note, viz: that while all the world is favored with an abundant harvest of apples, that crop is an entire failure throughout this town (Lebanon, N. H.) while almost as soon as we pass beyond its boundaries, we behold the trees burdened with fruit.

E. J.

THE SEASON AND CROPS.

Since October came in there has been occasional falls of rain, but not enough to make any impression on the streams or springs in this vicinity, and now, Oct. 16th, they are lower than at any time in the summer. A great many wells are dry, fall feed has been greatly reduced, and the feeding of stock on winter fodder must commence early. The rain of Saturday night and Sunday, though copious, will not much affect the springs.

The Indian Corn Harvest is chiefly gathered, and will prove a three-quarters crop, being much better than was anticipated in August and the forepart of September.

The potato crop is also much better than was anticipated six weeks ago. White Chenangoes have rotted some, but most other kinds are sound, and have yielded a fair crop. They are selling, however, to-day, in Boston market for \$2 to \$3 a barrel.

Mangolds and ruta-bagas have been seriously affected by the drought, and the crops will be comparatively light.

The crops in England and Ireland have been good and securely harvested. The *Derry Standard* says, the agricultural produce of this season in Ireland will fully realize £10,000,000 sterling, *fifty millions* of dollars, above that of last year. It also states that the grain markets are cheaper in Belfast than in Philadelphia.

For the New England Farmer.

APPLE TREE BORER.

DEAR SIR:—If the following method for destroying the apple borer, after it has entered the tree so far as not to be reached by any other means, is of any value, it is at your service.

If the borer cannot be punctured by a wire, I clear the hole of the cuttings, light an India cracker and discharge it at the mouth of the hole, holding it as near as possible. The concussion of the atmosphere probably destroys the insect. My trees are few, but I have practised it on them many times in three years without a failure. I usually discharge two, and if very much enraged, three; probably one would generally answer the purpose. Perhaps a small tube, containing a few grains of powder, might be more convenient, and quite as effectual.

Yours, &c.,

F. FIELD.

P. S. Perhaps it is proper to say that the tree is not injured in any way by the operation.
Waltham, Oct., 1854.

WHAT OUR COUNTRY PAYS FOR GUANO.—The *Genesee Farmer* says:

The quantity of guano which will be brought to the United States this year will be about 200,000 tons.

Two hundred thousand tons of guano, purchased at fifty-five dollars a ton (the present price in New York,) will take out of the country eleven million dollars for imported manure. For a comparatively new country, this is a startling fact. All the corn and corn meal exported in the last fiscal year amounted to less than two and a half-million dollars.

When will our people see the folly of wasting so much of the elements of crops in almost every rural district, and then sending to the west coast of South America for ten million dollars' worth of Manure.

AGRICULTURAL SOCIETIES.

OFFICERS OF THE N. H. STATE SOCIETY.

NATH'L B. BAKER, Concord, *President*.
JAMES O. ADAMS, Manchester, *Secretary*.
FREDERICK SMYTH, " *Treasurer*.

CHESHIRE COUNTY AGRICULTURAL SOCIETY.

DAVID BUFFUM, of Walpole, *President*.
JOWA. K. SMITH, of Dublin, } *Vice Presidents*.
ABEL WILDER, of Keene, }
PAUL F. ALDRICH, of Swansey, }
HARVEY A. BILL, of Keene, *Secretary and Treasurer*.

THE CORN CROP OF THE UNITED STATES.—The corn crop is one of the most important crops of the country; hence the anxiety produced by the long drought.

According to the census of 1850, the total amount of corn produced in the United States was 592,071,104 bushels. The principal corn-growing States produced as follows:—

Ohio,.....	59,078,695	Alabama,.....	23,753,048
Indiana,.....	52,964,363	Georgia,.....	30,080,090
Illinois,.....	57,646,984	North Carolina,.....	27,941,061
Missouri,.....	36,214,637	Virginia,.....	35,254,349
Kentucky,.....	58,672,591	Pennsylvania,.....	19,335,214
Tennessee,.....	52,276,223	New York,.....	17,868,400
Mississippi,.....	22,446,552	South Carolina,.....	16,271,454

A full crop for 1854 is estimated at 700,000,000 bushels.

FINE CATAWBA GRAPES.—EBEN JACKSON, Esq., of South Boston, brought us the other day a piece of a grape vine about eight inches long, upon which were hanging three bunches of the finest Catawba grapes we have ever seen that were ripened in the open air. They were perfectly ripe, the skins tender and thin, and the pulp melting and deliciously flavored.

Suffolk Pigs.



The subscriber has the pure Suffolk Pig for sale from 3 to 4 months old, also a lot of half blood.

ABNER HAYEN,
B. Framingham
ct.

Jan. 14, 1854.

Automatic Apple Parers.

THIS little Machine is the very best article that has ever been presented to the public for culinary purposes, far surpassing all others for paring apples, potatoes, turnips, &c. &c., just received at NOURSE & CO'S Agricultural Warehouse, No. 9 & 13 Commercial Street, Boston.

Sept. 23, 1854.

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ADVERTISING DEPARTMENT.

A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

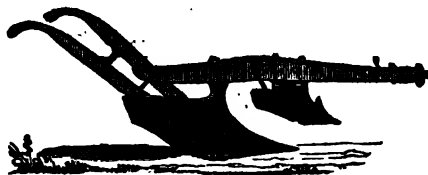
RATES.

For one square 15 lines, one insertion.....\$1.00
For each subsequent insertion.....50

The above rates will be charged for all advertisements, whether longer or shorter.

THE BOSTON AND WORCESTER

EAGLE-DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility.

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop.

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverisers, quite unnecessary.

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverisation accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE FLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1854.

Super-Phosphate of Lime.

THIS celebrated Fertiliser, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian Guano in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of Phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bone, decomposed by sulphuric acid, to which is added a due proportion of Peruvian Guano, Sulphate of Ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT,

Agent for the manufacturer, 5 Commercial, corner of Chatham Street, Boston.
Feb. 18, 1854.

ct

J. H. HAMMOND, ARCHITECT.

THIS subscriber offers his services to those about erecting new, or altering old, buildings. He will furnish drawings and working plans, specifications, and every thing in relation to a clear understanding of what is wanted. He thinks he is able to present some new views in the construction of Barns, or in altering old ones, whereby more conveniences may be obtained and at less expense. His charges will be so moderate as to enable every farmer to avail himself of his services.

Address J. H. HAMMOND, Grafton, Mass.

May 27, 1854.

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Oyster Shell Lime.

I HAVE on hand, and am constantly manufacturing this article for farming purposes. It has also been extensively used during the last season for laying the walls of cellars, and stone work of a similar nature, and is found to answer this purpose equally as well as the best stone lime. After 1st March, the prices will be as follows:

For less than 50 bbls.....	50c
Or over 50 bbls.....	49c
In Bulk—a large car load containing 90 bbls.....	50c
A small car load containing 40 bbls.....	35c & 7 bbl.

delivered at either depot in Boston or Charlestown.

The subscriber has also for sale Muriate of Lime, in bbls.

JAMES GOULD,
Feb. 18, 1854. 70 State Street

Fruit and Ornamental Trees.



Newton Corner, March 18, 1854.

The proprietors offer for sale an extensive assortment of fruit and ornamental trees, comprising all the choice standard varieties, for the Garden or Orchard; also Currants, Gooseberries, Grape Vines &c. 1000 Buckthorn and Arbor Vitae for Hedges.
B. & G. HYDE.

SILAS B. WILDE,
BOOK, JOB AND CARD PRINTER,
Exchange Street, Concord, Mass.

EVERY description of Book, Job, Card and Fancy Printing, executed in a neat and expeditious manner. Marriage and Address Cards neatly engraved and printed. Also, on hand and for sale, Wedding Envelopes and Cake Boxes.
Sept. 23, 1854. 3m

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYFORD and JOHN Nourse, at Quincy Hall, South Market St., Boston.

SIMON BROWN, Editor.

FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

Terms, \$1.00 per annum in advance.

All subscriptions to commence with the volume, Jan. 1.

The FARMER is devoted exclusively to Agriculture, Horticulture, and their kindred Arts and Sciences; making a neat volume of 576 octavo pages, embellished with numerous engravings. It may be elegantly bound in muslin, embossed and gilt, at 25 cts. a volume, if left at the office of publication.

Also published at the same office every Saturday, on a large handsome folio sheet, the

NEW ENGLAND FARMER, (WEEKLY.)

An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments, under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

Terms \$3.00 per annum in advance.

The monthly contains nearly the same matter as the Agricultural department of the weekly.

Postmasters and others, who will forward four new subscribers on the above named terms, for either publication, shall receive a fifth copy gratis for one year.

All orders and letters should be addressed, post-paid.

RAYNOLDS & NOURSE,

QUINCY HALL, SOUTH MARKET STREET, BOSTON.

POSTAGE.—The postage on the New England Farmer, monthly, is 1½ cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Farm for Sale.



The subscriber offers for sale his Farm, containing one hundred and twenty-three acres of good land, a good one-story house, two good barns, and over one hundred feet of sheds attached to the barns. The Farm is well wooded and watered, and well adapted for a dairy, and is mostly fenced with stone wall. Also, a good sugar orchard, sugar house and fixtures, in good repair. For further particulars, inquire of the subscriber, on the premises. Said Farm is situated in Shrewsbury, Windham County, Vermont, one mile east of the centre, 2½ from Cuttingsville depot.

N. B. If the above Farm is not disposed of before the 16th day of November next, at 10 o'clock, A. M., it will then be offered at public vendue.
H. T. CLARK.
Shrewsbury, Rutland Co., Vt., Oct. 21, 1854. 5w7

For Sale.



The subscriber offers his farm for sale, on which he now lives, and will give immediate possession. The farm consists of 75 acres of good land, a one-story House, Shop, Barn, Sheds, &c., mostly new, with first rate, never failing water in the house, also a good wood-lot near by, a superior garden with a variety of fruit trees. This farm is situated in WARWICK, Mass., 2½ miles from the Centre, 4 miles from school, 1 mile from Grist and Saw Mill, and 6 miles from South Orange depot.

Any one wanting a pleasant, healthy farm, can have a more particular description by dropping a line to the subscriber.

JOSHUA T. BANGS.

Aug. 26, 1854.

Suffolk Pigs.



On hand few pairs fine ones. Also for use the best boar of same breed in this country. This is the finest specimen of any animal I have ever owned; should be pleased to show him.
GEO. W. WILSON.
Malden, April 23, 1854. 6m

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.



DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VI.

BOSTON, DECEMBER, 1854.

NO. 12.

JOEL NOURSE, PROPRIETOR.
OFFICE....QUINCY HALL.

SIMON BROWN, EDITOR.

FRED'K HOLBROOK, } ASSOCIATE
HENRY F. FRENCH, } EDITORS.

CALENDAR FOR DECEMBER.

THE CLOSE OF THE YEAR.

"Glad Christmas comes, and every hearth
Makes room to give him welcome now,
E'en want will dry its tears in mirth,
And crown him with a holly bough.

Though tramping 'neath a wintry sky,
O'er snowy paths and rimy stiles,
The housewife sets her spinning by,
To bid him welcome with her smiles."

CLARE'S SHEPHERD'S CALENDAR.



TERN DECEMBER
closes up the
train of the
Months, and
with it, ends the
rolling Year.
The Harvests are
all gathered, and

although the clouds long re-
fused to shed their gladdening
rains upon the parched earth,
most of the crops have been suf-

ficient, and some abundant. The hay-harvest was full; the small grains were cut short, and in many localities a failure; the potato crop plentiful, and of better quality than for several preceding years; the Indian corn crop, far short of last year, but a full three-fourths average of former years; vegetables fine, and in abundance, and fruit, with the exception of peaches, a large supply and of excellent quality. The grape crop has been plentiful, and the fruit of unusual richness and value. With a better knowledge of the means of preserving it, the grape will become one of our most wholesome and delicious winter fruits.

While the earth has generously yielded to us, and filled our garner with its fruits, the same watchful Providence that has given vitality to the minutest seed, and caused its germ to spring to the air and light, has shielded us from unseasonable heats and colds, and averted the pestilence and internal commotions which have afflicted

some other nations. There is, then, every reason for grateful and happy hearts, and none for murmuring or despair. We have seen that "every thing is beautiful in his season," that every thing displays "the power and goodness of God." His Providence directs us, step by step, developing the faculties of the mind, and enlarging its power of administering to the necessities of the race. New modes of life, new comforts and occupations spring from the wonderful activity which impels our people. The language of the Shepherd Poet, which we have quoted above, would be applicable to few of our homesteads now; for the spinning wheel is the thing of a past age, and has sung its cheerful song in thousands of our rural homesteads for many years, but that song animates our maidens no longer; running waters and scalding vapors are now made to propel the wheels that spin the wool, the cotton and flax! All the occupations present new aspects; strange machines are in the barns, and fields, and workshops, and manufactories, saving the toil of millions of thews and sinews by an increased activity of the mind.

Urged on in the calling which we have chosen, not only by a desire to discharge a duty, but by the unnumbered charms which it presents, the year has passed rapidly and pleasantly away. Our visits to the homes of the people, and our associations through these columns have been agreeable and profitable; and we trust that these relations will long be continued with mutual advantage.

It is not so much to be desired that we shall live fast, or long, as that we shall live well; that each day shall find its duties faithfully discharged, and the mind calmly waiting either for another day of active duty, or for a suspension of the cares and amusements of life, and a summons to that wider field of action where only the culture of the nobler faculties will be required.

The pursuit of agriculture as an occupation is

eminently favorable to calm contemplation and a quiet, useful and peaceful life. Less temptations are there offered than in the crowded places of traffic, where society is more artificial, and there exists a greater disparity in the conditions of men; and in the varied aspects of Nature on the farm, in the ever unfolding wonders of the vegetable and animal kingdoms there are fresh and constant incitements to the practice of virtuous lives.

Our people need more of a well-regulated system in their business, but no stimulus to greater physical activity. Constant and agreeable employment, but not overwrought, will afford the happy condition where all the faculties may be most fully developed; a condition in which each individual may say—"I have enough for all my views and purposes: more wealth might be troublesome, and distract my attention from those pursuits in which I delight." Let it, then, be our mutual effort, in the coming year, that all enjoy this condition who desire and seek it.

FARM ACCOUNTS.—With the closing year, close all accounts; if they are allowed to pass over more than one year unsettled, the chance is that they will run many years, until confusion creeps in, and unkind thoughts, perhaps words, and alienation between neighbors, takes place. Most transactions may be remembered through one year, so that errors, or misunderstandings may easily be adjusted. If you value peace and pleasant associations with your neighbors, suffer no accounts to run longer than one year. But if there are difficulties, yield a little; let your charity place the most favorable construction upon every word uttered and act done, and if you cannot agree, refer the whole matter to disinterested friends, and not to the law.

FEEDING STOCK.—On this subject we have copied an article from the *Wool Grower*, to which we call particular attention. It includes the subject of *shelter*, as well as feeding. A plentiful amount of fodder may be very injudiciously expended; *regularity* in feeding is of great importance, for when the appetite is properly gratified, there should be periods of rest when no food is expected. If cattle are fed at any and all times, they will always be looking for food, and consequently uneasy, and this is not favorable to a thrifty condition.

SYMPATHY WITH STOCK.—Do not believe that they are so dull as not to understand and appreciate your kind feelings. Last week a noble horse got loose upon the farm, and for an hour gave the astonished neighbors the most wonderful specimens of "ground and lofty tumbling," they had ever witnessed. Coming to spots in the garden where the loam was light and deep, he would plunge into it, roll, then rise, shake his sides, and with nostrils red and expanded, with mane, tail,

and heels flying, showing his shoes nearly ten feet in the air, he bade defiance to his pursuers and their long poles! He gained the centre of the field, and then stood snuffing the gale from every point, the noblest animal of creation next to man. A boy approached him with outstretched arm and gentle words—"Poor fellow! Come here. I will not strike you." These were more potent than the poles had proved; the horse met him, rubbed his nose against the boy's jacket, and said as plainly as he could speak,—"I'll trust you; we are friends," and was led away to his stall. The animals of the farm soon become acquainted with the looks and manners of those about them, and will usually return such treatment as they receive.

DEBT.—It is one thing to run into debt for a good farm implement that will enable you to save its value in a year, or a pair of oxen with which you may accomplish your spring work, then pasture and fatten, and make 10 per cent on them, and another to purchase furniture or fancy horses and carriages that you can very well do without; or "more land," which will embarrass your purse, and withdraw the attention and the manure from the acres now only half cultivated. Incur no debt unless from a necessity, if you wish to sleep soundly nights. Many things are to be done in this December, strictly appertaining to the farm, but that which we especially urge belongs to the mind. Store it well in these comparatively leisure hours with useful information; cherish the social affections, and make the world a cheerful one around you; and may we meet again beyond the boundary line of 1854, in the month of Happy Wishes, the first of a New Year.

THE MONTHLY FARMER.

This number closes the current year, and is accompanied by a full alphabetical index of the subjects treated in the volume, together with a list of the names or signatures of the correspondents. The volume contains articles upon nearly every subject which comes before the farmer in his vocation, most of them of a peculiarly practical character, and written with clearness and force. Their authors are persons engaged in the business of which they have written, and their opinions flow from their own operations and experiences. To the young farmer, or the inexperienced, who enters upon the management of a farm later in life, the *Monthly Farmer* will prove a treasury of knowledge enabling him to conduct its concerns with skill and consequently, with profit. Valuable articles may be found on fencing, reclaiming, draining, plowing and planting, seeding, gardening, culture of orchards, rearing and management of horses, cattle, sheep, swine and poultry; on the division of farms, on the variety of soils and crops

best adapted to them; on the dairy; on the preparation and application of manures; on the implements and machinery of the farm, and, indeed, nearly everything that has a bearing upon either the internal or external interest of the homestead. These are interspersed with such articles as are supposed to interest female readers, and others that would prove useful to the mechanic and even the student.

There are also some fifty engravings of stock, implements, utensils and machinery, many of them engraved especially for this work, and embellishing and giving additional value to the whole.

NOTICE.

The undersigned would inform his friends and the public that he has disposed of his interest in the *New England Farmer* to his late partner, Mr Joel Nourse, who will adjust the affairs of the concern.

In retiring from the post which he has occupied for the past four years, he would express his thanks to his numerous friends and patrons, for their favors, and many kind words of encouragement, and would also say that he has lost none of his zeal in the cause of agriculture, and that it is not improbable that he may still continue to be engaged in disseminating useful information upon the art with which his tastes and interests are so intimately connected.

JOHN RAYNOLDS.

Boston, Nov. 16th, 1854.

THE PUBLISHER TO HIS READERS.

The readers of this paper will learn, from a card in our advertising columns, that the firm of RAYNOLDS & NOURSE has been dissolved, by mutual consent, and that the undersigned has become the sole proprietor of the weekly and monthly *Farmer*. In announcing this change, the publisher will take occasion to say, that he assumes the whole burden of its management with the determination that the paper shall not only maintain the position it has already won, but that it shall attain to a still higher character and a more commanding influence among the agricultural periodicals of our country. The corps of office and associate editors who have conducted the paper for several years past, will continue their services, and will still receive the aid of the numerous correspondents whose pens have in times past imparted so much value and interest to our columns. If a strong force of able writers, a liberal outlay of capital, and efficient business management, can insure success in an enterprise of this kind, the undersigned thinks he can promise his readers that the *New England Farmer* shall continue to be known as an instructive, reliable and progressive Agricultural and Family Newspaper.

Boston, Nov. 16th.

JOEL NOURSE.

NOTICE.

Important changes will be made in the Monthly *New England Farmer*, with the commencement of the new volume in January next. The size and number of the pages will not be altered. The work will be stitched and enclosed in a neat cover, and the advertisements will be printed on a separate sheet from the other portion of the work, so that they will not be included in binding the volume. The publisher has time only to announce these changes, but he intends to make the *New England Farmer* a first class magazine, and hopes to receive that support from the public which he will spare no effort to deserve.

EXTRACTS AND REPLIES.

FRIEND BROWN:—I herewith send a few apples of two varieties which grew in my garden. The sweet ones in particular, are considered very fine, and I think them well worthy of cultivation. I have two trees, one of which bore five bushels in 1852, and the other bore none. This year the latter bore well and the former had not an apple on it. The tree is a thrifty grower and an abundant bearer. The foliage is very thick and dark colored; the fruit comes into season here in 10th month, and it retained its flavor and kept well last year until the first of 2nd month. I never saw the apple in New England, though it may be found there. I should like to know the name.

The sour apples are now in their prime. The samples are part of the produce of a graft in one side of a tree. I had two bushels this year—not quite so many last year. I think I never saw a limb better loaded with fruit, nor one that presented a more beautiful appearance. Please give the name.

The samples are about an average for size and quality. Hoping they will arrive safe and in good condition, I remain thy friend,

LEVI VARNEY.

Bloomfield, C. W., 11th mo. 6, 1854.

REMARKS.—The sweet apple is very fine, both in appearance and flavor. It very nearly answers the description of the *Peach-Pond Sweet*, a Duchess County, N. Y., apple. It is a darker red than the *Peach-Pond* usually presents, but the specimens sent may be apples that were exposed to the full influences of the sun, which would give them a high color.

The sour apples are probably seedlings of the locality where they are found, and only of third-rate quality in flavor, but fine-looking.

GRAPES.—The use of grapes as an article of food, is much recommended in case of consumption. They contain a large quantity of grape sugar, the kind which most nearly resembles milk sugar in its character and composition, which is also useful for consumptives, it having a great attraction for oxygen, and readily affording materials for respiration.

The number of persons employed directly by the Boston newspapers is about 900.

For the New England Farmer.

MATURING PLANTS.

BY A. G. COMINGS.

Some months since, I furnished a short article for the *Farmer* on Maturing Plants. It was the leading object of my article to excite discussion upon various ideas which I asserted in what was then written. In the weekly *Farmer* of October 14, is a communication from Mr. Rufus McIntire, upon the "dogmas" of my communication before referred to. Having been from home, a month passed without my possessing any knowledge of Mr. McIntire's communication. Of course it could not receive an answer from me, unless I possessed an ability to judge a matter before hearing it. I believe fully in the right of every man to call every assertion of principle or fact in question, until he can gain satisfactory evidence of its truth. A man is not at liberty to deny any thing merely because it lacks proof. To deny, he must be armed and prepared to disprove what is asserted.

I do not understand Mr. McIntire to deny what I have asserted, positively; although some expressions may have such a look. He places himself in the attitude of investigation—he says, in substance, that, if these things are true, he is blindfolded—he wants "more light." This is all right. I hope farmers will pursue this course freely and constantly. I would, therefore, thank Mr. M. for his shot at the target which had been put up for him. I had, to my mind, full evidence of the correctness of the ideas advanced; but I did not imagine that the mass of those who ought to be interested in them, if true, would readily give credit to them.

There is in Mr. M.'s communication some sound of what Phrenologists call "*snap*." No objection to that—not the least. It is a poor gun that has no snap to it. It would not kill a lion nor a louse, a tiger nor a toad, if killing were ever so necessary.

To reply to him, we must hear him talk. Then a little talk may be made in answer.

1. Mr. M. says, "He remarks that a soil that contains no carbon in the form of vegetable matter or otherwise, cannot mature seed, though a stock may be produced, and instances the growth of wheat straw with worthless seed, and extends the same remarks to corn, rye and oats. Where can a soil be found, that any farmer would till, destitute of vegetable matter?"

Answer. Clay may be taken from any depth below where there is any vegetable matter, and clay-loam, also, and clover will grow in it readily, but at first in a dwarfish state. The fact rests upon positive proof. The clover contains carbon. Where does it come from? The small amount contained in the seed, under the influence of heat and moisture, begins the work of growth—then it appropriates its mineral elements from the soil—then opens its tiny leaves and feeds on carbon from the air, in the shape of gas.

The clover grows tap-rooted. The root itself contains more carbon than many seeds. The blade also contains much. The root is exceedingly insignificant in size, until the leaves are spread into the air. When the leaves are fully out, then the root immediately shows, by the rapidity of its growth, a new accumulation of power for progress.

If our world has been created, and the earth brought forth vegetation according to the Scripture accounts, all the carbon of the vegetable matter of the whole world has been derived from the air. From experiments which I have made, and circumstances of vegetable existence which I have known and examined, the conclusion is to me irresistible, that all the elements necessary to the growth, maturity and perfection of every kind of vegetable; is contained in the air, the rain, and the earthy matter of the soil. If so, the elements which lie dormant in the subsoil, with those contained in the rain and air, need only to become combined properly, and disengaged from impeding difficulties and affinities, to constitute a fit state of the soil for any service of vegetable life.

In 1853, I raised the finest, largest and best savoy cabbages that I ever saw, where the soil, to the depth of about a foot and a half, was made entirely from the subsoil taken from below the reach of roots of plants or trees, so that it contained no vegetable matter. To this no vegetable matter was applied in any form. Mineral manures only were applied.

In answer to Mr. M.'s first question, then, I will say, everywhere that a good subsoil can be found, if the vegetable matter is all gone, the intelligent farmer can cultivate with hope. He must not expect more than a dwarfish growth at first, of grain or grass; and that to fall below the production of seed, except in case of the top-rooted plants, which may produce a small quantity of seed, especially if biennial. But to expect the fibrous rooted plants to grow and produce seed under such circumstances, such as wheat, rye, oats or corn, is out of the question.

2. Again, Mr. M. says, "Experience shows the uncertainty of a crop of wheat and the certainty of a crop of corn on the same soil. How will Mr. Comings account for this difference?"

Ans. There may be a variety of reasons for this. Indian corn may do well upon soil which contains so small a quantity of salt, or soda and chlorine, that wheat would not come to maturity. A few years ago I had some wheat precisely in this predicament. It began to lose color before the seed began to form, and gave clear evidence of failure. Upon a part of it I sowed fine salt, at the rate of a bushel and a half or more to the acre. The rest of it I left to its fate. Where the salt was applied, the wheat recovered and matured finely. The rest was dwarfed. In other cases, other causes would prevent the success of wheat, where corn would succeed.

Then again, corn will fail in some places where wheat does finely. There are many principles operating, any one of which may produce such results. The farmer who will understand the *why* of success or failure in all these things, will know that which he ought to know, to be a true farmer.

3. Again Mr. M. "He remarks that a good crop of turnips, or cabbage, can be produced with a small amount of vegetable matter in the soil, but that seeds of them cannot be raised on such soil. I would respectfully ask, what are his proofs of this position?"

Ans. Various and repeated experiments prove the growth of turnips and cabbages to require the earthy or mineral elements most at first; that they then draw largely from the atmosphere;

and that in the last work of the plant, the production of seed, it drives all its vital forces upward into the seed, which is always placed at the extremity of the plant. But more of this hereafter.

4. Again, Mr. M. says, "My own experience is, that cabbage and turnip seed can much more certainly be raised than good heads of cabbage or good turnips. Indeed, turnips will often refuse to increase into large good bulbs, and cabbages to head, but seed will be produced plentifully from these worthless turnips and cabbage stumps. Where does the carbon come from that produces these things?"

Ans. In all this, there is nothing very strange. Just such things have been seen everywhere, almost. This world has produced a great many cabbage-heads, and it is not strange that there should have been many small ones. It is one of the easiest things in the world to raise fine cabbages and fine turnips; but it all consists just exactly in this: *a man must manure his ground with good understanding.* That is just the best manure to buy. It never fails. Thousands of small cabbage-heads have been grown in soil where there was a superabundance of carbon; but there was a lack of the necessary mineral elements. In the same soil, seed could be grown in any quantity. This in no way conflicts with the ideas of my former communication.

Turnips, and cabbages also, throw certain mineral elements into the leaves, in large quantities. In the roots those elements are less required. The sprouting seed of the turnip uses its carbon in its first life. The radicle, or root which shows affinity with earthy matter, strikes into the soil. The plume is lifted up. The leaves increase. Small, fibrous roots branch out in every direction, in search of food. The leaves become much larger, while the root remains but a small tap-root. (I speak of the common English turnip.) To it we again look, and we perceive the leaves to be of full growth. Now begins the formation of a bulb. As the bulb shows signs of maturity, the leaves turn yellow. They have performed their office.

I have a fact to refer to. I have observed that whenever the tops were cut off before the formation of the bulbs, no bulbs would be formed until a new set of leaves grew. If the leaves were kept down, no bulbs would form. Here is to me sufficient evidence that the carbon which helps to form the bulb is largely drawn from the atmosphere.

The further consideration of the subject must be deferred to another time, for another communication.

A. G. COMINGS.

SPIRIT OF THE AGRICULTURAL PRESS.

Professor NASH, of Amherst, is the Editor of the *Connecticut Valley Farmer*. In the course of his agricultural visits last September, he called upon several farmers in Essex County, and among them, WILLIAM F. PORTER, Esq., of Bradford. He went over his farm, examined his stock, implements, &c., and listened to his statements with regard to loss and gain and adds—

"It will be recollected by some of our readers,

that Mr. Porter drew the Essex Society's premium for the best managed farm, in 1851. His statement on that occasion was the best we have seen. It was full of valuable suggestions, which we doubt not have been ere this the cause of similar improvements on other farms to those which he describes in his own. In that statement Mr. Porter shows the year's expenses of his farm to have been \$1,451.91, the receipts for the year to have been \$3,369.76, and the nett profits \$1,927.85. He shows also that the farm, stock and tools stood him at \$17,000, and that the year's profit amounted to about twelve per cent. on that investment. In that same statement, which we recollect to have read with intense interest, at the time, Mr. Porter states also his belief that he had that year greatly increased the productive capacity of his farm for years to come. Time has since verified the soundness of his opinion. The farm, now containing 200 acres, enables him to sell produce, for which his receipts are all of \$4500 a year. He also declares himself fully confirmed in the opinion there expressed, that capital employed in farming may by energy and enterprise, be made to produce twelve per cent. profit."

We have known something of Mr. Porter's made of management, have been over his farm, and knew something of its capabilities for many years before he occupied it, and have no reason either to doubt his statements, or that the farm is an exceedingly valuable and productive one.

For the New England Farmer.

GRAFTING SUCKERS OF THE COMMON PLUM.

MR. EDITOR:—What I am about to state may be nothing new; yet you may deem it worth repeating for the information of those who do not know, and for reminding those who have forgotten of an interesting fact in horticulture.

During the last spring, I grafted some suckers of common plums with scions of superior kinds. The suckers were not transplanted, but grafted where they grew, by the cleft-graft mode, low down near the ground. The grafts were tied with bass, and covered with grafting wax, and afterwards gravel was placed round them on the ground, so as to defend the wax from the action of the sun. The scions took successfully, some of them pushing very strong shoots. Having forgotten, until to-day, to examine the grafts and loosen the ties, I found on removing the gravel, that the bass ties were undecayed, and very much constricting the small stocks and the inserted part of the scions, which latter were greatly enlarged just above the ligatures; and from the callus or enlargement of the graft, as well as from the stock, above and below the tie, strong healthy roots were pushing out under the gravel, so that the scions apparently will become independent of the stocks, and established on their own roots; this is a favorable object, and may probably be attained in the case of other fruit trees as well as plums, by a similar treatment of the grafts.

It is my opinion, however, that the plum tree may be propagated by cuttings, without the assistance of grafting. I have observed, on turning up the ground where branches or prunings of

plum trees had been accidentally covered with earth that roots in great profusion had been produced from every part of the buried branch, as healthy and abundant as would have been put forth by willow cuttings, in a similar condition; being much occupied, I did not follow up the observation by making trial of plum cuttings. Those who have leisure and opportunity, will, I hope, do so.

I have in view another experiment, which I now announce in advance, trusting that I may be anticipated by persons who have more energy and perseverance than fall to my share. It is well known that the quince is a useful stock for the pear in situations where the soil is rich and moist, but that it fails in dry and gravelly soils. A stock that would dwarf the pear and induce fruitfulness, and also flourish in dry and poor ground, would be an acquisition of value. Such a stock may be found if I am not mistaken, in the small tree called in this locality, Indian Pear, but known in New England and other parts, by the name of Shad Bush or June Berry. The botanists' term for this tree is *Mespilus Canadensis*, or *Amelanchier Botryapium*. It flourishes in every soil; our gravelly hills and dry banks are covered with a spontaneous growth of it. Its development being less than that of the pear, the grafts should be placed low, so as to be readily covered with the ground, that the disproportion of stock and tree may not be seen. It attains to a size equal to the quince however. In my boyish days, I grafted these trees with pear scions which made considerable growth during the first season, but I lost sight of them, and know not whether they continued to prosper. As the trees were growing among other wild bushes, they were probably cut down; and the scions having been inserted in the branches had not much chance of becoming permanent; but I consider the stock to be a very promising stock for dwarfing the pear, and if life and health be granted, I may yet make the trial. I remain, Mr. Editor, your old subscriber,
October, 25, 1854. FAR EAST.

REMARKS.—We do not know but the old adage,—"there is nothing new under the sun"—is true; but we do know that some most excellent things in agriculture, whether new or old, are not practiced. The above experiment is not only interesting, but encouraging, and will not fail to lead to valuable results. In confirmation of the fact stated by our correspondent, we will state an experiment of our own. About the last of March, in the spring of 1853, we cut healthy and vigorous suckers, as they are called, from an American Amber cherry tree, and immediately inserted them in the ground to the depth of six or eight inches, and directly under the tree from whence they were cut. The ground was shaded through the summer by the tree, and was occasionally watered with soap suds. The suckers then planted are now, some of them, four feet high and perfectly thrifty.

What need is there of grafting, if the cherry and plum can be obtained so easily by cuttings? Cuttings from many trees, would undoubtedly

take root and grow well, if they were properly placed in the ground, and in proper situations. The direct rays of the sun must be nearly excluded from them, and the earth in which they stand be moist. We hope "Far East" will write us often.

GEMS.

GENTLE WORDS.

It is not much the world can give,
With all its subtle art;
And gold and gems are not the things
To satisfy the heart;
But O, if those who cluster round
The altar and the hearth,
Have gentle words and loving smiles,
How beautiful is earth!

A TINY POEM.

Little drops of water,
Little grains of sand,
Make the mighty ocean,
And the beauteous land.
And the little moments,
Humble though they be,
Make the mighty ages
Of eternity.

HEAVEN.

Heaven's gates are not so highly arched
As princes' palaces; they who enter there
Must go upon their knees!

IS FARMING RESPECTABLE?

MR. EDITOR:—Some weeks since, I made a few remarks in answer to the question, "is farming profitable?" I propose to answer the query, "is it respectable?" It may be, after all, that people generally want money, for the purpose of making themselves respectable. What is respectability? Or in what does it consist? Now I am not in the habit of betting, but will venture to *affirm*, that not one in ten of your readers have any distinct idea of what respectability is; or what makes a man respectable. If wealth makes a man respectable, the old "Gripus," with his hoarded thousands, who walks the street with teeth shut as though he had the lock-jaw, and who clenches a fourpence, between his thumb and fore finger, so tight that you could not pull it away with a pair of pincers, is respectable. Yet, everybody hates him. Nobody will say that wealth alone, especially in this country, constitutes respectability. A "respectable man" is one whom the multitude delight to honor; who is regarded with attention; who is esteemed by the community generally as a trusty, a wise, or worthy man. Why, then, may not a farmer be as respectable as a lawyer, doctor or merchant? A man's reputation is, in some respect to be sure, controlled by the popular breeze; and a man may be despised to-day, for the very qualities that will make him popular to-morrow. In my estimation, a man with "a good name" is a respectable man; and therefore, as the wise man said, "a good name is rather to be chosen than great riches." No man should be despised merely because he pursues a useful and honorable business; and if farming is disreputable, it is because the farmer despises his own calling. The truth is, farmers in this country, and I suppose it is so everywhere, do not sufficiently respect

themselves. They look on professional men, and persons engaged in some other vocations, as a sort of superior people; and when demagogues condescend to flatter them, they feel "tucked up," as the saying is, just as children feel when receiving the approbation of their superiors. They feel a strong impression that farming has got a "bad name," and are tickled with the notice of persons whom they consider above them. But it will not always be so. There has been a good improvement in this respect during the last fifty years. Farmers are beginning to feel as "good as anybody." And why should they not? Is there anything degrading in cultivating the soil, the most important occupation on earth? The day-laborer on the farm cannot appear every day in his broad-cloth and clean dickey, and he is prone to envy the man who can do so; and he looks on his soiled clothing and long frock as a badge of disgrace. Fie on you, man! It is said, the negro despises his own color; and if you are ashamed of yourself because you are a farmer, all I have to say is, you are just as wise as the negro.

We might go on and give a great many reasons why farming should be respectable; but it would be wasting ink to no purpose. Nobody will deny it. That it is not so respectable as some other calling, is also very apparent. Let a man appear in a promiscuous assembly, dressed in such a manner as to indicate that he is a farmer, and the "officers of the day" never see him; at church the sexton seats him in a distant pew, and he is made to feel in all his intercourse with the world, that he is nothing but a farmer.

Now respectability depends, as has already been intimated, on public opinion; and the farming portion of the community, being by far the most numerous, they are capable of controlling this opinion; consequently, all we have to do is, to respect ourselves, and if our business is not respectable, we may thank ourselves for it. There is no occupation in the world that gives the laborer more leisure time, than farming. This time may be spent in improving the mind; in the acquisition of ideas; consequently, the farmer need not be an ignorant man. Or these leisure hours may be devoted to writing for the agricultural, political, or religious press; and in this way he may have an influence abroad that no pulpit in the land can equal, for the press at the present day, is the great "lever that moves the world." Or if some of our farmers would spend their spare hours in practicing the art of declamation, I have no doubt that many of them would become respectable, and some of them superior public speakers. There may as well be learned farmers, as "learned blacksmiths." It is by no means necessary that a farmer should be an ignorant drudge, travelling an unvarying round, "like a horse in a bark mill," destitute of the amusements and elegancies of other professions. In fact, there is no other profession so full of real enjoyment as the farmer's. We have everything the heart can desire; or may have all. It lies in our own breasts and own wills to say whether our occupation shall be respectable. All that is wanting is a little more independence of character, so that we can stand up in the conscious dignity of manhood, and *boast* that we are farmers. Why, if all the farmers would do this, their numbers and influence would be such, that the "learned pro-

fessions" would hide their heads and slink away abashed. Many of your readers have seen a pedler of soap, who made even his two-penny trade respectable by being proud of it himself. Of one thing we may be sure; nobody will have a better opinion of farming than the farmer has. Our occupation ought to be as good in New Hampshire as a title of nobility in Europe. There may be mean lords and mean farmers; but the fact that a man tills the soil for a living, ought to be considered presumptive evidence of his respectability. It is so in other professions, then why not in ours.—*Plowboy in Granite Farmer.*

THE SEASON.

From the first of June last, up to Tuesday, the 31st of October, rain did not fall in many parts of New England, in sufficient quantity to wet the ground as low as the roots of plants penetrate. Persons digging wells found scarcely any signs of moisture ten and twelve feet below the surface, and those heretofore affording an abundant supply of pure water had become dry, or the water was so impregnated with unpalatable salts as to become unfit for use. Such has been the case in many instances.

On the 31st of October, the heavens were opened; after many ineffectual attempts to weep upon the suffering soil, clouds came over this region and began gently to shed their rich treasures upon the crying and hungry earth. Fortunately, the rain fell at first in a thick, drizzling mist, until the surface was so much moistened as readily to imbibe the copious showers; it then came freely for several days, frequently accompanied by a strong south wind.

We noticed that immediately before the storm began, our interesting neighbors, the Muskrats, began to erect their winter habitations, and never did they rise with so much alacrity before; story after story went up, and what were yesterday but apparent heaps of fresh muck on the margin of the river, soon came to imposing edifices, with their subterranean and submerged channels, and convenient upper rooms. They are now beautiful pyramids, overlooking the river and adjacent meadows; we hope they will not become to the poor animals "dreadful posts of observation." How these curious animals knew the storm was approaching, that the river would suddenly rise and the low lands be overflowed, we have not learned. We did not see them looking at the weather-vane on a neighboring barn, or watching the state of the barometer, or hold up a wet paw to ascertain the direction of the wind, yet their instinct did not fail to prompt them to provide in good season for the coming waters. How beautiful and instructive to the observing mind are the works of the lower orders of animals. How obedient to the instincts implanted in them. How forcibly they recal expressive passages of the great Psalmist—

"O, Lord, how manifold are thy works! in wisdom hast thou made them all; the earth is full of thy riches."

"These wait all upon Thee; that thou mayest give them their meat in due season."

"That Thou givest them they gather; Thou openest Thine hand, and they are filled with good."

Rarely have we received a better lesson than this of the Muskrats; to live truly to the attributes which God has implanted in our natures. We wish we could recite the lesson as well as we have learned it.

Now, at this writing, the clouds still portend a little more rain—the earth is saturated—the brooks skip with joy, and the springs so long silent, gush up with gladness. Hungry pike find a wider range on the flooded meadows, among the reeds and rank grass, and full mill-ponds drive merry wheels that had become dusty and dull for want of use.

Winter may now come as soon as it will. We shall have plenty of water for the cattle, and if Old Boreas favors us, plenty of ice for the Orientals and for skating upon by the boys. The full ponds and swamps and bubbling springs will send out their latent heat to soften the frosty winter air, and send back in curling vapors to the atmosphere a portion of the moisture they have so recently shed upon us.

CUTTINGS OF FRUIT TREES.

Cuttings should be made in autumn after growth has ceased, or early in winter—they may be preserved by fastening them in a box by slats running across, and then placing the open side of the box downwards with its contents in the bottom of a pit dug for the purpose, on a dry spot of ground, and burying the whole with earth. The slats keep the cuttings from coming in contact with the earth below, and they are preserved in a proper moist condition. Or, they may be packed in slightly damp moss, in a large box, placed in a cellar. Very early in spring they should be set out. Every cutting should be cut off just above a bud at the upper end, and just below one at the lower end. Taken off closely to the old wood, with a base attached, they are more sure of growth. They should be set out in a trench, in a rich mellow soil, which is to be packed or trodden closely about them as the trench is filled, and afterwards a mellow surface made by drawing on a little more earth. The length of the cutting should be eight inches to a foot, and two-thirds to nine-tenths buried. Shading the cuttings of any deciduous trees, (including all fruit trees) is of little or no advantage, but it is important to keep the ground uniformly moist; if this is done by watering, the surface should be preserved from crusting or cracking by mulch. This is the mode of raising quince trees, currants and gooseberry bushes, grapes, &c., but will not answer for the larger fruits generally, in the Northern States—it is cheaper to bud or graft, than to procure the few which may be obtained among many failures in this way.—*Albany Cultivator*.

For the New England Farmer.

GUANO.

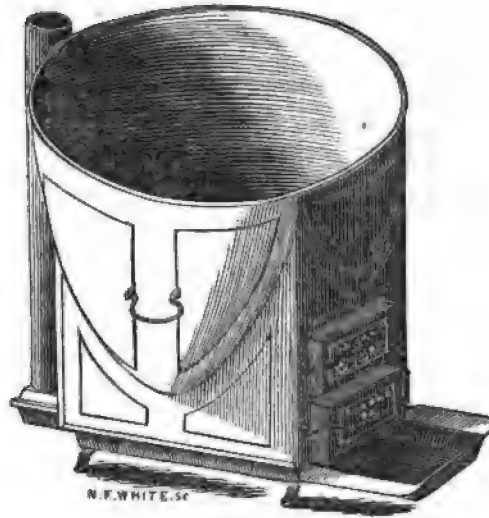
As your correspondent gives the results of his trial of guano, I will give mine. I found an acre of land, lying unfenced, before the academy, serving as a pasture for all the stray cattle of the place. I put on a fence and planted it, with a view of grading when the ground was suitable. It is of the Connecticut Valley land, a light, worn soil. Having no manure, I bought 150 pounds of guano and applied on the hill, mixing it well with the soil. I planted three-fourths with corn, and the remainder with potatoes. It was hoed twice, and before the second time, had plaster and ashes. I left one row without guano. That came up looking as if it needed a tonic. I plastered half of it, which improved it. The worms ate it badly, and the drought affected it severely. I have just harvested fifty bushels of ears, the corn of which appears plump and sound. This is rather above the average in this region on similar land. The crop here is full one-half short from the drought, except on the low meadows, where it is fully up to the average. My potatoes are good, being remarkably large and sound. I think the average is about 18 hills to the bushel. As they are not all dug, I cannot give the amount.

I bought and applied half a load of hog manure, at a cost of 75 cents, including hauling. The corn planted on this was better than that on guano, yielding about one-fourth more. The potatoes seemed to be no better than on the guano, being more in number, but smaller. This, I think, a common effect of that manure. I had, also, a bushel of beans. These grew well on the guano. Cost of guano and applying it, about \$5.00—the guano costing \$4.07. The plaster and ashes cost \$2.25, and was applied to all the potatoes and corn except half a row. Manure, at \$3 per cord, would have cost me about five times as much, applied at the rate I used the hog manure, which gives a volume in favor of the guano. My crops are as good as those of my neighbor adjoining, with thirty loads of stable manure to the acre. If my ground is not in so good condition for the next year, I can afford to apply more guano, and not incur so much expense as he. I regard the trial as satisfactory.

Several of our men have tried it in various ways. Mr. D. P. Wheeler applied about 125 pounds to the acre of grass land, on the same soil and situation as mine. It was estimated to have doubled the grass. The grass was nearly a foot taller than where it was not applied, on the same ground. Its effects are plainly seen in the after-growth, at this time. He sowed his on about four inches of sugar snow, which melted the same day. Dr. Hosford and S. Willard, Esq., applied some to grass and to oats in May, with scarcely perceptible effects. It was applied in dry weather. Some others applied it in various ways, but with results not unlike the above. Those who covered it or applied it while wet, received benefit; those who used it dry, had little. The trial, on the whole, gave so favorable a result, that a second, on a larger scale, will be made the ensuing year.

A more particular statement of its effects in particular cases, together with some remarks on its application, may be made at another time.

I. H. NUTTING, M. D.
Orford, N. H., Oct. 5th, 1854.



**MACGREGOR'S PATENT PORTABLE
CALDRON FURNACE,**

OR, AGRICULTURAL BOILER.

The belief is prevalent now that it is a matter of economy to cook most of the food fed to swine, and under this belief many persons are devising methods of doing it in the cheapest and easiest way. We have before us a boiler somewhat different in its construction from any we have heretofore represented, and which is said by some who have used it to be superior to any other. We have not tried it. The description below is from Messrs. Ruggles, Nourse, Mason & Co.'s catalogue.

"These furnaces are made with and without covers, very substantial, and are more durable than any others in use; are arranged for wood, or fitted with grates and fire brick lining for coal. With the lining they are ever durable by replacing the bricks occasionally, at an expense of only \$1.25, and can be used with wood with equal facility as if not lined.

They require less amount of fuel to accomplish the same amount of work than any other furnace or boiler, either set in iron or brick.

They heat equally as quick at the front as at the back part, the fire and draught being entirely under the control of the operator by simply moving one damper at the back part, consequently they are well adapted for all manufacturing and mechanical purposes, and for farmers' use, where an equal and governable heat is required. For the boiling of oil, the rendering of tallow, lard and such like articles, the boiling of food for stock, and the scalding of hogs, this article is unequalled by any furnace or boiler in the mar-

ket. They have been fully tested eight years with much success. They are of different sizes, holding from $\frac{1}{4}$ barrel to 4 barrels."

For the New England Farmer.

BURNT CLAY, MEANS GRASS, &c.

Burnt clay is now extensively used, in some sections of the country, as a manure for garden soil. It is generally prepared, I believe, by first accumulating a *quantum sufficit* of woody matter, and covering it with clay. The mass is then ignited, and burnt till the wood is reduced to coal and ashes, similar to the manner pursued in coal burning. The charcoal, ashes and clay thus furnished, constitutes an excellent dressing, and produces highly beneficial effects on both crop and soil.

MEANS GRASS—(*Sorghum Halapense*.)—This is a native of Syria, and belongs to the same genus as broom corn. It has recently been introduced to notice in this country by some experiments made in Massachusetts and New York, where its cultivation has been attended with considerable success. It can be cut several times in a season, and is consequently well adapted to soiling.

STRAWBERRY RUNNERS.—These should be contemplated in the light of weeds, and destroyed. They are no less detrimental to the plants than ordinary kinds of spurious vegetation, and produce effects equally as deleterious upon the crop. A writer in the *Gardener's Chronicle* remarks: "So convinced am I of the propriety of cultivating this fruit in separate and distinct plants, and of cutting off the runners, that I have this season taken out a plant between each of my plantations—thus making the distance between each plant *four feet by three*." This is, perhaps, running somewhat too far into the opposite extreme; but there can be no question that an open arrangement is preferable to a close and crowded one.

A writer in one of the agricultural journals, in course of observations on Strawberry Culture, after asserting his opinion that most persons allow their vines "to run themselves to death," says:—"If you would observe the plants that bear the best in the fields, you will see that they are those which have but few or no runners; while those which have run very much, and become matted, bear little or no fruit. This is a lesson worth observing, when you come to cultivate the strawberry in the garden. Where the wild plant has not sent out much runner, from some cause or other, you will find the stock large and strong, the leaves broad and healthy, and the fruit, which has the benefit of both sun and air, is large and high flavored. If you have strawberry plants in your garden, keep the runners down to a foot in length, and you will make them healthier and more fruitful."

GARDENER.

INQUIRY AND OBSERVATION.

It is not expected that the farmer shall have an exact knowledge of the construction of the trees and plants which he cultivates with so much care; or of the anatomy and physiology of the animals which he rears. He cannot learn the precise habits of the insects which destroy his crops, their periods of coming and retiring, or the office which it is designed they shall fill in the economy of nature. Yet a general knowledge of the laws which govern them, and a constant observation of their habits, will divest us of much of the repugnance felt towards them, and lead us to a profound contemplation of the wisdom and goodness of the Great Architect of all.

We plant the seed, and behold the germ springs to the light and air. What wonderful operations are still carried on! The tree assumes the most stately, as well as graceful forms—the buds, the leaves, blossoms, and fruit appear, surpassing in beauty all art of the most skillful hands. It furnishes fuel, shade, fragrance, sustenance, oftentimes protection against summer heats, or winter winds, and always beauty to the landscape.

But the farmer too often stands in the midst of his trees, his plants, and flowers, of his corn, and grass, and grain, which he has caused to grow, and looks upon them as the result of a mere mechanical operation. He overlooks that wonderful and mysterious agency which prepares the food, diversified as it is, and sends it to the farthest bud and leaf of a monarch of the forest, or the minutest tendril of the tiny vine. He plows, because it is easier to plant and hoe in a loose soil, forgetting that, in a fine tilth, there are millions more mouths to receive the food which the plant requires than in a compact soil; that these open mouths catch fertilizing substances from every passing breeze, and drink them in from the cooling dews and genial showers. He forgets that the sand which he applied to the clay land, has found potash in the soil, become soluble, been ta-

ken up by the roots of the plant, carried to its utmost extremities, and now covers the straw of his wheat-field, with a delicate and beautiful coating of sand, or enamel, which gives it strength to stand erect, and thus present its seeds to the influences of the sun and air, and bring them to perfection.

While he reaps, shall he not inquire how this came, and compare it with another field, which fell to the ground and failed to perfect its grain? Will he not investigate these causes and thus acquire more knowledge of the operations of nature, and more power over his crops?

By an accurate knowledge of the times when insects appear, and the kinds of plants on which they prefer to feed, the time of planting and sowing may be varied, so that it may be possible to escape their ravages in some degree in this manner; or as their period of existence is often very brief, we may learn their time of retiring to a winter home, and destroy them there by late plowing or other means. The season of their coming and retiring, the food they require, and the length of time they remain, being accurately understood, will, at least, give us a power over them we do not now possess. But this is not all we gain. This knowledge admits us to some of the secret and wonderful operations of irrational life, and thus leads us, by successive steps, "through nature up to nature's God."

The Rose Bug, for instance, has received its name from its annual appearance coinciding with the blossoming of that plant, and this fact may operate as a note of preparation against its ravages; and so it may aid us against the Caterpillar, Cankerworm, Curculio, and Beetles. The latter insect sometimes proves exceedingly destructive. The discovery was made by a gentleman, that they visited and defoliated his cherry trees in the night. When this habit was known, they were shaken down and destroyed in large numbers, and the trees afterwards saved. This fact was learned by reference to a work on insects, and will illustrate what it has become too fashionable to condemn as *Book-Farming*, as if facts recorded in a book or newspaper were not as valuable as though declared by the tongue. To be consistent, the scoffer at *Book-Farming* should reject many of the best practices of the farmer now, because Virgil wrote of them; or Cato, or Columella, or Jethro Tell, commended them.

The insect race has its part to fill in the great plan, and that part is undoubtedly an important one. We accuse them of encroachments when they select, as their favorite food, the plants we are cultivating for our own pleasure or profit. It may be, that in their deliberations and conventions, if they hold any, they look upon us as the aggressors. They feed on the common bounty as well as ourselves, enjoy their brief existence and die. Our

domestic animals do the same; but we make them subserve our purposes, and are content. We have not yoked the insect race to our implements for practical purposes; but having this decided advantage of them, the possession of reason, it is the part of wisdom to study their habits with patient care, until we become as well convinced of their usefulness, as we are of that of the Ox and Cow, and that an intelligent Being placed them here for our good.

Many of the Beetles live on plants not only of little use to man, but some of them poisonous, and in a state of decay often offensive; they are therefore to be reckoned among our friends. Some live on the juices of animals, and by this means destroy a great number of noxious insects. Others are of service in the arts, affording us the costly cochineal, scarlet grain, lac and manna. Dragon flies and some others subsist upon plant-lice, and thus become our active protectors.

For the New England Farmer.

BLACKBERRY—HEN MANURE—SALT FOR CATTLE.

THE BLACKBERRY.—This delicious fruit has rarely received the attention of the cultivator, though eminently deserving of all the care that can be bestowed upon it. A correspondent of the *Albany Cultivator*, over the signature of "S. H.," gives the experience of a friend of his, "who has a beautiful hedge, which produces a great abundance of excellent fruit." He says: "The plants are set out in rows four or five feet apart, and are kept free from weeds through the summer. In the fall, these spaces (between the rows) are filled with leaves from the forest. The next spring a quantity of ashes is strewn between the rows—these, with the leaves, are all the means used to secure a beautiful harvest every year."

HEN MANURE.—Like guano, hen manure possesses many valuable properties, in a form most conveniently concentrated. In all cases, however, where it is applied *directly* as a stimulant to crops, it should be compounded with some less powerful material, as loam, muck, or garden soil. This is a necessary precaution, as the depositing of the seed on or beneath it, would inevitably prove fatal to its vitality. Mr. W. Bacon, an occasional correspondent in the *Farmer*, in the *American Agriculturist* says:

"I have lately been informed, by an intelligent and skillful cultivator, that the following preparation affords an ample and complete remedy. Take hen manure one part, reduce it as well as you can to powder; then with an equal part of plaster of Paris, incorporate well together, and sprinkle the mixture over the vines, or sow it over the drills of your turnips.

Hen manure is free from the seeds of foul weeds, and, in consequence of the great abundance of ammonia it contains, it possesses a great effect in pushing plants forward. Hence, for tomatoes, peppers and similar plants in our northern climate, it possesses high value. It is well worth being saved with care, by farmers and gardeners, for every purpose of cultivation. Care should be

used, however, in its application, for if given in too large quantities, and placed in too close proximity to the roots of the plant, its effects are fatal. Its value for all purposes is greatly increased by being mixed with charcoal, or when this is not at hand, with plaster. Every man who keeps hens should have his hen-house so constructed as to save all the manure, and save it dry as may be, and he will find it no inconsiderable item in his matters of rural economy."

SALT FOR CATTLE.—When cattle are allowed to partake freely of green and fermentable food, and especially on changing to it from dry aliment, they require a constant and liberal supply of salt. One quart of salt, and three of wood ashes, mixed, should be given to a full-grown animal monthly.

OBSERVER.

EVENING.

See! the shadows now are stealing
Slowly down the mountain's breast—
Hark! the turret bells are pealing
Cheerily the hour of rest.
Now the mellow daylight closes,
All the world from toil reposes;
Every breeze has sunk and died—
'Tis the peaceful eventide.

O'er the vale the mists are creeping;
Chaunting hive-ward wends the bee;
One by one the stars are peeping
Through the welkin tranquilly.
Murmuring, like a child dreaming,
Starlight on its ripples gleaming,
Through the mead the brook doth glide,
In the solemn eventide.

Oh! how sweet, at day's declining,
'Tis to rest from earth-born care;
Gazing on those far worlds shining,
Dreaming that our home is there.
Though the shadowy gates of even
Shut out earth, they open heaven,
Where the soul would fain abide
In the holy eventide.

Dublin Univ. Mag.

For the New England Farmer.

A G O D PLOW.

GENTLEMEN:—Wishing that all those engaged in agricultural pursuits should have the best tools in use, I take the liberty to write you, although we are strangers, that in my opinion, among the most important tools is a good plow. I find that in 1849, Sept. 14th, I bought of you an Eagle Plow, No. 2, with Wheel Cutter, for which I paid you \$11. With this plow I have done the most of my plowing from that time to the present; and you will find, by looking at the *Barnstable Patriot* of the 17th inst., I took the first premium for plowing at the Fair. The irons, by long use, are somewhat worn, but I think, by general observation, that the Eagle Plow, No. 2, for plowing all kinds of ground, has but few equals and no superiors. This plow runs deep, and you can always plow with a short chain, and gauge the plow by the wheel. I plowed at the Fair 7 inches, the others less. At 7 inches, the plow runs easy and light for the oxen and those that manage the plow. I bought of you last May an Improved Cultivator, Rogers' steel teeth; this I think to be one of the best in use, and I would

advise all those who want the best implements, to use those named above.

Respectfully, E. T. CORB.
Barnstable, Oct., 1854.

AGRICULTURAL AND COMMERCIAL VALUE OF RAILROADS.

The *Democracy*, a journal recently established at Buffalo by an association of gentlemen, and conducted with a good deal of ability, publishes the following table and remarks illustrating the value of railroads.—*Hunt's Magazine*.

Upon the ordinary highways, the economical limit to transportation is confined within a comparatively few miles, depending, of course, upon the kind of freight and the character of the roads. Upon the average of such ways, the cost of transportation is not far from fifty cents per ton per mile, which may be considered as a sufficiently correct estimate for the whole country. Estimating, at the same time, the value of wheat at \$1.50 per bushel, and corn at seventy-five cents, and that thirty-three bushels of each are equal to a ton, the value of the former would be equal to its cost of transportation three hundred and thirty miles, and the latter one hundred and sixty-five miles. At these respective distances from market, neither of the above articles would have any commercial value, with only a common earth road as an avenue to market. But we find that we can move property upon railroads at the rate of fifteen cents per ton per mile, or for one-tenth the cost upon the ordinary road. These works, therefore, extend the economic limit of the cost of transportation of the above articles to 3,300 and 1,650 miles respectively.

Statement showing the value of a ton of wheat, and one of corn, at given points from market, as affected by cost of transportation by railroad and over the ordinary road.

	Transportation by railroad.	Transportation by highway.
	Wheat.....	Corn.....
Value at market.....	\$49.50	\$24.75
10 miles from market.....	49.35	24.60
20 do. do.....	49.20	24.40
30 do. do.....	49.05	24.30
40 do. do.....	48.90	24.14
50 do. do.....	48.75	24.00
60 do. do.....	48.60	23.85
70 do. do.....	48.45	23.70
80 do. do.....	48.40	23.55
90 do. do.....	48.14	23.40
100 do. do.....	48.00	23.25
110 do. do.....	47.85	23.10
120 do. do.....	47.70	22.95
130 do. do.....	47.55	22.80
140 do. do.....	47.40	22.65
150 do. do.....	47.25	22.50
160 do. do.....	47.10	22.35
170 do. do.....	46.95	22.20

How wonderfully does the railroad enhance the value of farming lands at a distance from market! American farms, generally speaking, are very far from market. Indeed, New York is the market for the bulk of the northern agricultural products. Most English farms have a market nearly in sight of them. But ours are for the most part so far away, that railroads of long lines and long connections instantly double, treble, quadruple, and quintuple the worth of grain lands near where

they run. This has been the case in Ohio, Michigan, Indiana, Illinois, Wisconsin, and Canada. The President of the Nashville and Chattanooga road has stated, that the increase in the value of a belt of land ten miles wide, lying upon each side of that line, was equal to \$6,50 per acre, or \$96,000 for every mile of road, which cost the company only \$20,000 a mile. It has been calculated that the construction of the 2,000 miles of railroad in Ohio would add to the value of landed property in that State three hundred millions of dollars—that is, five times the cost of the roads, which was \$60,000,000. The country can stand bankruptcies that come through railroad enterprises, if it can stand any. Of all forms, they are the least mischievous.

NEW SYSTEM OF PRESERVING MEAT.

If fresh meat could be had from distant countries, where it bears a very low price, the people of France would be able to purchase a much larger quantity of animal food; but this has been hitherto impossible, for the cost of transport and of fattening would be such as to make the meat dearer than that which is raised in France. Attempts have been made to preserve meats in the cheap countries, and export them to France, but they have all failed. There is now a project before the Emperor and the Minister of War for the drying of meat in South America, where it can be had at about one sou per pound, and importing it from thence for the use of the army and navy. We have seen some specimens of meat dried in Paris, and which at the expiration of five months were perfectly good. In South America a very large quantity of meat is dried in the sun, but the process carries away a very large portion of the nutritious properties, and it remains good only for a few weeks. The process on which the government has now to give a decision is simple and apparently efficacious. The water of the meat, which forms a very large portion of its bulk, is removed; and not by heated air, which has been frequently tried, and never with success, but by mechanical means; the meat is then plunged into a sort of varnish made from the gelatinous portions of the animal, and which not only forms a hard surface, but also enters into the pores of the meat and augments the nutrition, and then the meat is gradually dried. In about fifteen days it is fit for packing, and will, according to the assertion of the inventors, keep good for two or three years. When required for use, the meat is put for a few minutes into water, and it nearly resumes its original bulk, and is cooked in the usual way. If it be true that meat thus prepared will keep for two or three years, or even for one year, the adoption of the process will produce an enormous change in the economy of subsistence. In South America it can be prepared at about two sous per lb., including every cost. As it is reduced in bulk about one-half, the cost to transport would not exceed one sou, and it could be sold in France, with a profit of 25 per cent., at four sous per lb. South American meat is not, perhaps, equal in quantity to that raised in France, but even supposing it to be inferior to the extent of 20 per cent., the working-classes and the poor would have an abundant supply of animal food.—*Galvani*.

For the New England Farmer.

FARMER FOR OCTOBER.

Guano.—A report of some very careful experiments with Guano, by Mr. Putnam. My own onions, with tears in their eyes, unite with his in saying that guano does not agree with their stomachs, although some of the doctors said it must be just the thing for their constitutions. I planted a bed of top onions in drills over guano well mixed with hen manure and soil, and then, with the determination of having a premium bed, it was repeatedly watered with a weak dilution of guano. But I did not get the premium; for "all through the season they had a sickly look" and a feeble growth. I hope his seventy-five pounds upon his corn land will give a more favorable report. A few missing hills are all the effects I am able positively to report of part of a bag put in the hills, on a dry sandy soil.

Why is the farmer discontented?—"Because the occupation is not understood," is almost the last reason I should assign. Do not nine farmers out of ten know better than they do—are cramped and hindered by want of means and time rather than by want of knowledge? Tell the farmer who has no orchard, no currants, no flowers, no wood-pile, no pig-pen, no conveniences at all, that he don't know how to plant a tree or bush, that he don't understand chopping wood, that he has not ingenuity enough to fix up a fence or make a shelter for his pigs, and would he acknowledge that to be the reason of his discontent? Hard work and small pay at home, an easy life and large wages abroad, seem the alternatives that are constantly before the mind of young farmers, while many old ones believe that almost every body else live easier, more comfortable and genteel than themselves. So long as this is the case, so long will farmers remain discontented, and just so long they have a right to be discontented. Nor will education or science better the matter much. Does the young man and the young woman rush from the farm for the factory and shop to find food for the mind? Do the multitude go to California for the development of their intellectual faculties? So long as the conviction remains upon the minds of farmers that those who leave the business make out better than those who remain in it, it is pretty much useless to preach them into contentment. These things will regulate themselves. When the trades and professions are filled up, or crowded down, to a level with agriculture—when people cannot do any better elsewhere, they will be content to till the soil. Many think that this will be the case soon; some believe, with your correspondent "A City Mechanic," and others, that it is so now. Every one will decide for himself.

Make your Girls Independent.—Machinery and other causes have of late made sad havoc of "woman's rights." Many of her occupations are gone entirely; and in looking about for substitutes, it is not strange that she should occasionally interfere with the prerogatives of the other sex, especially as tall men find it more profitable to make bonnets, to bake bread, to measure ribbons, pick up type, display calico, teach children, and be "kitchen corporals," than to plow the fields or rear herds. Mr. French's article will be much read. Suggestions from such a source on this important subject will be

thankfully received; and the assurance of such men that "respectable employment" for females may be found in "dress making," in "manufacturing establishments," &c. will do good. In this neighborhood, nurses readily command from four to six dollars per week, and are often procured with difficulty at any price. Should not this be added to the list of employments for which females should be educated?

Fall and Spring Transplanting.—Whichever way the question of superiority may be finally decided, the fact that both seasons will answer, remains to encourage us to plant both spring and fall, until the question is settled.

Manuring Fruit Trees.—Why would not the common crowbar answer for making the holes for liquid manure, which are bored by the machine here described?

Honor to the Farmer's Wife.—If "not more than one out of two are capable of managing their part successfully," have not old bachelors about an even chance, notwithstanding the "impossible idea?"

About Apple Trees.—Directions for planting and managing. On most "old land" I should recommend, as essential, the use of some kind of compost in planting, to give the tree a start. Mud or muck, mixed with ashes, lime, salt, plaster, leaves, &c., or piled up alone to "slack," a few months before being used, will put the inches on the ends of the twigs and on the body of the tree, the first year. A great many apple trees have been "set" within a few years past; yet a person will see but few thrifty young orchards, in a trip of a hundred miles in any part of New England.

A Good Garden.—History of a merchant's garden. "Ten barrels of good apples for winter," beside lots in the fall; "all the pears we want;" "twenty kinds of roses and nearly one hundred sorts of flowers;" "plenty of the finest plums I ever saw;" "bushels of grapes;" "potatoes, beets, carrots, turnips, cabbages, onions, beans, peas, corn, cucumbers, melons, squashes, and pumpkins, as many as our folks want to use, all on less than one-half acre of land, without any help but my girls in the flower department." Poor old New England!

The Useful and the Beautiful.—In this article we are told that Downing and others made "a very vital mistake, not in the good or bad compiling of English authors, but in having had any thing to do with them at all. . . . It is not true that English works are adapted to American wants, but just the contrary." In the April number of the monthly *Farmer*, in a dissertation on "What a Garden should be," the same writer, after condemning the "straight lines and right angles" of time immemorial, says: "It was reserved for England to sublimate out of the whole mass of artificial gardening, a truer and more natural style." I am well aware that uneducated people, like myself, ought to distrust their own "taste" when it differs from that of the learned and cultivated. But I must confess to a "taste" for geometrical regularity and proportion, and cannot agree with Mr. Downing in commending the man who threw up potatoes to plant trees by, lest his workmen should fall into the vulgarity of geometrical figures; nor can I

see much beauty in the necessity which compels me to "box the compass" in following a winding path from the highway to my front door.

Another Specimen of Farming—and a very favorable one too. I understand the writer to say that although he is able to do only about 15 or 20 days work in the summer, he finds after paying "all expenses," a profit of \$336 annually, over and above the support of his family. Do the clothing and groceries come out of this, or are they paid for out of the profits of some other profession, to which the time of "D. M." is mainly devoted?

State Almshouse at Tewksbury, Ms.—The account which is here given of the six hundred inmates of this institution, is a most sad one. That such an accumulation of ignorance, vice and misery should be possible in Massachusetts, in our day, is enough to make the blood run cold, and to prove that there is a difference between virtue and vice.

Cetonia Inda.—A description of an insect injurious to the peach.

"English Vegetables and Meats," "Application of Manures," "Tanning," "Cider Mills," and other machines, "Chapter on Husbandry," "Concord Grape," "City Mechanics and Country Farmers," "Marrow Squash," "Wages," and a great variety of other articles, must be passed over. I will here suggest to every reader of the *Farmer*, that the inquiries which are made of the Editor for information upon almost every branch of agriculture, and which are usually placed under the heading "Extracts and Replies," ought to be answered by all who think they can give any information, from their own practice or observation. This department of the paper might thus be greatly increased in value, for in many counsellors there is safety. Besides, these familiar questions and answers could hardly be classed as "book-farming," and might thus do more good than elaborate essays. The corn is now pretty much husked, and the long evenings may be well employed by those who seldom write, in answering the questions of the less experienced.

Winchester, Oct., 1854.

A READER.

For the New England Farmer.

SOAP, WHITE LEAD AND OIL.

MR. EDITOR:—It is not so generally known as it should be, that a mixture of the above named ingredients makes an excellent coating for gates, fences and out-buildings. The addition of the soap (soft soap only is to be used) considerably diminishes the expense of the paint, without in any degree lessening its durability, or the facility of laying it on.

I have a house, the north-west side of which was painted with this mixture nineteen years ago, and the paint is now much more brilliant than that put upon the other sides at the same time, though the latter was of the best quality of white lead and oil, and four heavy coats applied, while of the soap paint I applied but *two*. Fences painted with this mixture, as well as the roofs of buildings, for which purpose any coloring matter, or pigment, may be substituted for the lead, endure much longer, it is ascertained, than those painted with pure oil paint. The alkalescent qualities of the compound tend to indurate the

fibres of the wood, and render them impervious to those atmospheric influences which are the chief cause of decay and rot. The quantity of soap to be used can be best ascertained by experience; on this point no definite rules can be prescribed.

MILK.

The value of milk for dairy purposes, depends, to a considerable extent upon the animals kept. When analyzed, the fluid is found to consist of three distinct substances, viz:—cream, curd, and whey, into which it separates spontaneously in a state of repose. According to Berzelius, cream has a specific gravity of 1.0244, and consists in one hundred parts, of butter, 4.5, caseous matter, 3.5, and of whey, 92. On analysis, caseous matter yields carbon 59.78; hydrogen, 7.42; oxygen, 11.40; nitrogen, 21.38. When deprived of its cream, milk has a specific gravity of 1.03, and, in one thousand parts, yields of water, 928.75; caseous matter, 28; sugar of milk, 35; muriate and phosphate of potassa, 195. There are also noticeable traces of other substances.

Every farmer must have observed a striking difference in the quality of milk. While some animals produce a thin, bluish fluid, others yield a rich, yellow, or cream-colored milk, which is in every respect superior for any purpose. Feed, no doubt, as we have often taken occasion to observe, has a very decided influence in determining the quality of the milk of most animals; yet there are some cows which can never be made to produce a rich article, be they kept as they may. This fact—generally well understood it is presumed by the more experienced and practical part of the community—is of very great importance to the farmer, and should be scrupulously attended to in the selection of animals for dairy purposes. It costs, ordinarily speaking, as much to keep a poor animal, or one that yields a poor or indifferent quantity of milk, as it does to feed a superior milker. We are not sure but that in very many cases, it actually costs more to keep the poor animal.

There are generally indications of good milkers, which will be of great service, if they are studied so as to become familiar with them.

LONDON CURRANTS.—A writer in the *Horticulturist* speaks of the fine currants of the market gardens near London, which are grown in the following manner: They are planted in rows twenty or thirty feet apart, and three or four feet apart in the rows; the ground which is naturally good is highly manured, and cropped between with vegetables. When the plants commence bearing, they are pruned very hard; the greater part of the young wood is thinned out, and what is allowed to remain is shortened back to three or four inches. By this means the trees are always kept short, never attaining a greater height than two or three feet. These strong

manured and well-pruned trees produce magnificent fruit, and in great abundance, well remunerating the market gardener for his trouble.

FEEDING OF ANIMALS.

RELATIVE PROPORTIONS OF FOOD FOR MAN YIELDED BY THE SAME HERBAGE IN THE FORMS OF BEEF AND MILK.

A curious economical question, in connection with the value of vegetable produce in feeding cattle, presents itself to us when we come to compare the proportions of human food which may be obtained from the same weight of herbage when cattle are fed with it for different immediate purposes.

A ton of hay may be given to a bullock to be converted into beef. Another ton of the same hay may be given to a cow to be converted into milk. Would the beef or the milk produced contain the larger supply of food for man? We have rather imperfect data to rely upon in answering this question, but they lead us to very interesting results.

1. According to Sir John Sinclair, the same herbage which will add 112 lb. to the weight of an ox, will enable a cow to yield 450 wine gallons, or 3600 lb. of milk. This milk will contain 160 lb. of dry curd, 160 lb. of butter, 180 lb. of sugar, and 18 lb. of saline matter, while the 112 lb. of beef will not contain more than 25 lb. or 30 lb. of dry muscle, fat, and saline matter together; that is to say, the same weight of herbage which will produce less than 30 lb. of dry human food in the form of beef, will yield 500 lb. in the form of milk.

2. But this statement of Sir John Sinclair's is, I fear, not to be relied upon. We have another, however, something different, from Riedesel, a Continental authority. He says that the same quantity of hay will produce either 100 lb. of beef, or 100 imperial gallons (1000 lb.) of milk. This quantity of milk contains only 150 lb. of dry food, but it is still five times as much as is contained in the beef.

This statement of Riedesel is also to be received with hesitation; but the subject is interesting and important, as well as curious, and is deserving of further investigation. Should the population of the country ever become so dense as to render a rigorous economy of food a national question, butcher-meat, if the above data deserve any reliance—will be banished from our tables, and a milk diet will be the daily sustenance of almost all classes of society.

INFLUENCE OF CIRCUMSTANCES IN MODIFYING THE PRACTICAL VALUES OF ANIMAL AND VEGETABLE FOOD.

The indications of theory, and the results of general practice, in regard to the nutritive power of different vegetable substances, are modified by many circumstances which ought to be borne in mind. Whether fed for work, or for the production of flesh or milk, the effect of the food given to animals will depend partly on the kind, breed, and constitution of the animal itself—on the general treatment to which it is subjected, and the place in which it is kept—on its size and state of health—and on the form in which the food itself is given.

1. *The breed or constitution*, every feeder knows, has a great influence on the apparent value of food. Some breeds, like the improved short-horn, have a natural tendency to fatten, which makes them increase in weight more rapidly than other breeds, when fed upon the same food. And even in the same breed, the rapidity with which one animal lays on flesh will sometimes make it two or three times more profitable to the farmer than others which are fed along with it.

2. *Warmth and shelter* cause the same amount of food to go farther, as do also gentle treatment and the absence of glaring light. Sheep have produced double the weight of mutton from the same weight of vegetable food, when fed under shelter, and kept undisturbed and in the dark. It is probably from this beneficial influence of warmth that, in the North American states, a difference of 25 per cent is observed in favor of the spring and summer over the winter feeding of the pigs upon similar food.

3. *The form in which the food is given* is of no less importance. Grass newly cut goes farther than after it is made into hay; and the opinion is now becoming very generally prevalent, that steamed, boiled, or otherwise prepared food, is more wholesome for cattle, and more economical to the feeder, than the same food given in a dry state.

In the case of horses, the difference between the practice of giving all the food dry and uncut, and that of giving all the hay cut with the oats and beans crushed, and an evening meal of steamed food, is such as to effect a saving of nearly one-third. Thus, the same wagon horses which consumed 34 bushels of oats per week, and 14 stones of hay, when given uncut, uncrushed, and uncooked, were kept in good condition by 24 bushels of oats, 8 stones of hay, and 7 lb. of linseed when the grain was crushed, the hay cut into half-inch chaff, and the linseed with a little bean-meal and cut hay made into a steamed meal-fed in the evening.*

The maling and sprouting of barley is by many practical men considered to increase its nutritive qualities. It is certain that, when mixed with boiled potatoes to the extent of three or four per cent., and kept warm for a few hours, bruised malt produces a prepared food which is much relished by milch cows, and is profitable to the dairy-man. There is reason to believe that similar mixtures with other kinds of food would produce similar beneficial effects.

Mr. Hudson, of Castle Acre, feeds his farm-horses on 12 lb. of *sprouted* barley a-day, besides their fodder; and this, on his light land, keeps them in good condition. It is prepared by steeping the barley for 24 hours, and then putting it into a heap and turning it over for five days.

5. *The souring of food* of all kinds has, by almost universal consent, been found to make it more profitable in the feeding and fattening of pigs. It makes them fatten faster, and gives a firmer and whiter flesh.

Many other circumstances also modify the real practical value of food, and cause it to produce results different from those indicated by its chemical composition.

* The dry feeding being—hay 12 lb., with oats and beans 14 lb.; the steamed feed—hay 3 lb., beans 3 lb., linseed 1 lb.—*Caird's English Agriculture*, p. 346.

For the New England Farmer.

CITY MECHANICS AND COUNTRY FARMERS—NO. 4.

WHY FARMING IS PROFITABLE.

Our last number, so far as it had reference to the subject under discussion, was a mere statement of the fact, that of my own family connections, those who remained farmers are better off for a living, than those of us who learned trades.

The question, Why is it so? was kept in my mind while I was looking into their circumstances, their modes of life, their means of getting money, their ways of saving and of spending it, and I think I have discovered the important secret of their success, and of our failure.

Merely to say that farming is more *profitable*, in the usual sense of the word, does not satisfy me; for I do not believe it to be true. I fully believe that no class of people in the country work so many hours for a dollar as farmers—that into the pockets of no other class does money come as reluctantly and slowly as it does into the pockets of farmers. Nor can I allow that they are, naturally, more shrewd, saving, or thrifty than those of us who happened to learn trades. The secret of their superior success, therefore, is one worth knowing, and for the discovery of which, I must claim all the credit I am entitled to. But before divulging it, directly, as might be done in few words, we will take a peep at the farmer, and at the mechanic, as they return of a Saturday night to their respective homes.

The farmer seats himself by an open door, that his eye may glance over the fields. He has been haying for several weeks, and expects it will require one or two more to finish. The weather has been hot and rather "catching," and he has worked early and late to save his hay and dodge the showers. An old scythe and an old shirt have given out to-day. A new scythe must be had on Monday morning, any how, although he has not received the "first red cent" for his last month's hard labor. The old shirt may be patched, for his account at the store is running up strangely this year. Besides, his hay is rather light—the barn is hardly up to the beams, yet—and instead of having a single load to sell, he is afraid of being short of fodder before winter is out. How natural, how absolutely unavoidable is an economy that shall tell, in a family thus situated.

The mechanic comes home on Saturday night with the looked-for, calculated-upon, ten dollar bill (more or less, as the case may be,) in his pocket.

"Now, wife and children, let's be gay; I've worked hard, and here's the pay."

The various plans which have been popping into the heads of the several members of his household, during the week, for the *economical* use of the expected money, are now discussed—food, clothing, fuel, rent, furniture, benevolence—not a single foolish project is suggested; yet the money is all provided for, and will be gone,—all gone,—by the time another week brings home another sum, to go in the same way. Thus almost unconsciously, a habit is formed of living up to the means; a habit that, after a little practice, becomes just as easy with three dollars a day, as with one dollar.

The avails of the labor of the farmer are beyond his immediate reach, and he can hardly spend them if he would; those of the mechanic are placed directly into his hands, in that most slippery of all property—ready money, which will almost vanish of itself. The farmer necessarily looks out for the future, "lays by in store," and takes into his calculations a year or series of years. This enlarges his powers of foresight, and in a great measure prepares him for misfortunes. The mechanic comes to limit his calculations and ambition to a week,—beyond which he neither looks nor cares to look; and thus reverses or sickness come upon him unawares, and unprovided for. Indeed, I often think that the practice of weekly payments, so stoutly contended for by mechanics, instead of proving to be a blessing, operates as a curse to them, by inducing this habit of living up to their means,—of spending all they earn as fast as it is earned. In making out the bills of journeymen, as I do for several weekly, I am sometimes amused, sometimes provoked, by their expedients to bring in every thing they have done, although the rule is to allow for such parts of the work only as are completed. By most, whatever is thus left to another week, is mourned over and scolded about as labor lost! To be assured that it will be good next week, affords about as much satisfaction as to promise them a corner lot in one of the cities in the moon. They take no thought for next week; may not live to see it; and if they should, next week must take care of itself.

Is my secret out? Farmers grow rich because they save; mechanics keep poor because they spend; and the habits of each are the result, mainly, of their respective circumstances.

A CITY MECHANIC.

Boston, Nov., 1854.

MILCH COWS.

If you desire your cows to yield liberally to the pail, you must feed them with something better suited to the secretion of rich milk than dry provender. Chopped roots, or meal slops of some kind, should be given them twice a day, at least, say morning and evening. They should also be provided with littered beds, dry lodgings—moderately warm—be regularly watered thrice each day, just before being fed,—be curried or combed once a day, and salt, with occasionally a little ashes or fine bone dust mixed, two or three times a week. They also like a *variety* of food. Roots, cut or rasped, and mixed with cut hay or straw, then stirred and left for an hour or two, make a mess which they will eat very greedily. We think that hardly attention enough is given to the *bedding* of cows, as the more quiet and comfortable they are, the less food will be required to sustain the system, and may therefore go to produce flesh or milk. A gentleman who has constantly employed several pairs of working oxen for many years, states that oxen will travel fifteen miles a day, being well "littered down" at night, as easy as twelve miles, and lie upon the bare floor. If this state-

ment be correct—and it seems to us consistent—it is a pretty important matter that all our cattle are well provided for in this respect.

BOSTON IN 1774.

The following description of Boston, just before the breaking out of the American Revolution, is extracted from the sixth volume of Bancroft's *History of the United States*, just published. Mr. Bancroft remarks that the king had set him, self, and his ministry and parliament, and all Great Britain, to subdue to his will one stubborn little town on the sterile coast of Massachusetts, and proceeds as follows:—

"The old world had not its parallel. It counted about sixteen thousand inhabitants of European origin, all of whom had learned to read and write. Good public schools were the foundation of its political system; and Benjamin Franklin, one of their pupils, in his youth apprenticed to the art which makes knowledge the common property of mankind, had gone forth from them to stand before the nations as the representative of the modern plebeian class.

As its schools were for all its children, so the great body of its male inhabitants, of twenty-one years of age, when assembled in a hall which Faneuil, of Huguenot ancestry, had built for them, was the source of all municipal authority. In the meeting of the town its taxes were voted, its affairs discussed and settled, its agents and public servants annually elected by ballot, and abstract political principles freely debated. A small property qualification was attached to the right of suffrage, but did not exclude enough to change the character of the institution. There had never existed a considerable municipality approaching so nearly to a pure democracy; and, for so populous a place, it was undoubtedly the most orderly and best governed in the world.

Its ecclesiastical polity was in like manner republican. The great masses were Congregationalists; each church was an assembly formed by voluntary agreement—self-constituted; self-supported and independent. They were clear that no person or church had power over another church. There was not a Roman Catholic altar in the place; the usages of "papists" were looked upon as worn-out superstitions, fit only for the ignorant. But the people were not merely the fiercest enemies of "Popery and Slavery"; they were Protestants even against Protestantism; and, though the English Church was tolerated, Boston kept up its exasperation against prelacy. Its ministers were still its prophets and its guides; its pulpit, in which, now that Mayhew was no more, Cooper was admired above all others for eloquence and patriotism, by weekly appeals, inflamed alike by the fervor of piety and of liberty. In the *Boston Gazette* it enjoyed a free press, which gave currency to its conclusions on the natural right of man to self-government.

Its citizens were inquisitive, seeking to know the causes of things, and to search for the reason of existing institutions in the laws of nature. Yet they controlled their speculative turn by practical judgment, exhibiting the seeming contradiction of susceptibility to enthusiasm and calculating shrewdness. They were fond of gain,

and adventurous, penetrating and keen in their pursuit of it; yet their avidity was tempered by a well-considered and continuing liberality. Nearly every man was struggling to make his own way in the world and his own fortune; and yet individually and as a body they were public spirited. In the seventeenth century the community had been distracted by those who were thought to pursue the great truth of justification by faith to Antinomian absurdities; the philosophy of the eighteenth century had not been without an influence on theological opinion; and though the larger number still acknowledged the fixedness of the divine decrees, and the resistless certainty from all eternity of election and of reprobation, there were not wanting, even among the clergy, some who had modified the sternness of the ancient doctrine by making the self-direction of the active powers of man, with freedom of inquiry and private judgment, the central idea of a protest against Calvinism. Still more were they boldly speculative on questions respecting their constitution. Every house was a school of politics; every man was a little statesman, discussed the affairs of the world, studied more or less the laws of his own land, and was sure of his ability to ascertain and to make good his rights. The ministers, whose prayers, being from no book, were colored with the hue of the times; the merchants, cramped in their enterprise by legal restrictions; the mechanics, who, by their skill in ship-building, bore away the palm from all other nations, and by their numbers were rulers of the town; all alike, clergy and laity, in the pulpit or closet, on the wharf or in the counting-room, at their ship-yards or in their social gatherings, reasoned upon government. They had not acquired estates by a feudal tenure, nor had lived under feudal institutions; and as the true descendants of the Puritans of England, they had not much more of superstitious veneration for monarchy than for priestcraft. Such was their power of analysis that they almost unconsciously developed the theory of an independent representative commonwealth; and such their instinctive capacity for organization, that they had actually seen a convention of the people of the province start into life at their bidding. While the earth was still wrapped in gloom, they welcomed the day-break of popular freedom, and, like the young eagle in his upward soarings, looked undazzled into the beams of the morning."

EFFECTS OF PROSPERITY.—How unavailing worldly prosperity is, since in the midst of it, a single disappointment is sufficient to embitter all its pleasures. We might at first imagine, that the natural effect of prosperity would be, to diffuse over the mind a prevailing satisfaction, which the lesser evils of life could not ruffle or disturb. We might expect that, as one in the full glow of health despises the inclemency of weather, so one in possession of all the advantages of high power and station, should disregard slight injuries; and, at perfect ease with himself, should view, in the most favorable light, the behavior of others around. Such effects would indeed follow, if worldly prosperity contained in itself the true principles of human felicity. But as it possesses them not, the very reverse of those consequences generally obtains. Prosperity debilitates, instead

of strengthening the mind. Its most common effect is, to create an extreme sensibility to the slightest wound. It fomenta impatient desires, and raises expectations which no success can satisfy. It fosters a false delicacy, which sickens in the midst of indulgence. By repeated gratification, it blunts the feelings of men to what is pleasing, and leaves them unhappily acute to what ever is uneasy. Hence, the gale which another would scarcely feel, is, to the prosperous, a rude tempest. Hence, the rose leaf doubled below them on the couch, as it is told of the effeminate Sybarate, breaks their rest. Hence, the disrespect shown by Mordecai, preyed with such violence on the heart of Haman. Upon no principle of reason can we assign a sufficient cause for all the distress which this incident occasioned him. The cause lay not in the external incident. It lay within himself; it arose from a mind distempered by prosperity.

EXTRACTS AND REPLIES.

TRANSPLANTING AND GRAFTING GRAPES.

MR. EDITOR:—A few days since I found a small grape-vine which had a few very excellent grapes growing thereon; I want to take it up and set it near my house. Will you inform me of the best time to take it up and how to proceed; whether I shall cut any of the top off, or any of the roots? One of my neighbors has a large grape-vine growing close to his door; it fills the top of an arbor, which he has built some six or seven feet high, so thick that it makes a perfect shade beneath; but what is singular about it is this; it blossoms full every year, but never bears a grape. Now if you or your correspondents can inform me of any method that will cause this vine to bear fruit, I shall feel very thankful for the information.

When is the best time of year to graft a grape-vine? I grafted one last June, the 5th, and after starting and growing a week or two it died; whether it was the dry weather, or whether it was too early or too late in the season, I am unable to tell. I sawed the vine off below the surface of the ground and made two holes the size of the scions and put them in, and put grafting wax around the stock, and then covered the whole with dirt except the top bud of the scions.

Oct. 7.

IGNORAMUS.

REMARKS.—In transplanting grape-vines *save all the roots*, but shorten the top, prune to a single stem for some distance from the ground, and then bud as many branches as are necessary to fill the space desired; be careful not to have too much wood, and to cut away all weak shoots. If your ground is dry, transplant in autumn,—if it is wet, transplant in spring.

Your large vine is probably a barren or "male" vine. You can graft it by cutting it off below the surface of the ground, and inserting the scions in the mode usually practiced upon apple-trees, called cleft grafting; do not pare the scions too thin, cover with clay and earth up to the top eye of the scions.

The best time for grafting the grape is thought

to be when the vine has just put out its leaves, and the first abundant flow of sap is over; the scions must be kept from starting into growth before they are put into the stock. We have tried grafting by boring holes in the stock, but without success.

WHAT ARE THE BEST GRAPES?

MR. EDITOR:—I wish, sir, to make some inquiries of you in relation to grapes. Are the Concord, Diana, Charter Oak, Sage, and some other varieties of grape loudly puffed up in agricultural papers equal in value to the Isabella and Catawba grapes? In regard to the Concord, it is declared by some to be only 5th rate; as to the Diana, a dish of the same were exhibited at our County Agricultural Fair; the size of the berries and bunches were not more than one-third as large as Catawba grapes by their side, I purchased one bunch of them, which was divided among several good judges of grapes, and they were tried with the Catawba and declared to be inferior in size, and flavor, and evidently they were no riper. I would say also that Mr. W. S. King, of Boston, decided they were the true Diana.

The Charter Oak Grape is raised by a gentleman of my acquaintance, and is declared to be valuable only for preserving; the berries, however, are of enormous size. The Sage grapes I have tasted and although of large size, it has the sharp, foxy flavor of the wild native grapes.

Now, Sir, if I am incorrect or mistaken in any of these varieties, I hope to be corrected, and I desire your opinion, for I believe that farmers are the last class to be humbugged, and these grapes have obtained a high reputation by the description given in agricultural and horticultural journals. My opinion is that the Catawba Grape, for a hardy out-door grape (if well cared for) is decidedly the best grape.

P. M. AUGUR.

Middlefield, Ct., 1854.

REMARKS.—A comparison of grapes by a *single* trial of them side by side, could not give any one a fair idea of their permanent value. For instance, Catawbas and Isabellas have ripened well this year where they have scarcely been known to ripen before. Now to take them in their best condition, and that a condition only realized once perhaps in five or ten years, and pronounce them more valuable than some other grape which affords a crop of fair ripe fruit every year, would be a very unfair way of deciding on their respective value. The great merit of the Concord grape is that it ripens an abundant and rich crop *every year*, while it is at the same time a prolific bearer and an excellent fruit. Last year and the year before, we ate them and thought them superior to the Isabella; this year we have eaten them together and thought the latter grape fully equal to the Concord, if not a little better. But this year we have the Isabella in perfection,—the first time for several years. The Charter Oak we have never tasted. The Diana has also the merit of early ripening, and is a fine hardy grape. Both the grapes being in perfection, you prefer the Cataw-

ba, while we should certainly take the Isabella as being less acid. Our tastes do not agree; so that pronouncing one as decidedly better than any other would not amount to anything more than an announcement of our own peculiar tastes.

TANNER'S TRIMMINGS.

MR. EDITOR:—I wish to make a few inquiries in regard to fertilizers.

The tanning business is carried on two miles from where I live, where I can obtain 5 or 6 cords of trimmings from the hides after being tanned, by hauling it away. The heap has been collecting six or eight years, and I should presume was partially decomposed at the bottom. Would it be profitable to haul it that distance as a fertilizer? (a.)

If so, what would be the best method of using it? My land is a very light loam, but not sandy. I have, however, two acres of clayey loam where I intend to sow spring wheat. I have bought some Mexican guano, and dry ground bone, with which I intend to manure my clayey land. When should it be applied, in the spring or fall? (b.)

Searsmont, Me., Oct., 1854.

J. M.

REMARKS.—(a.) You may use the trimmings you speak of with great advantage by plowing them in sufficiently deep to prevent the escape of volatile matter, or by composting with moist meadow muck or loam. They would be a cheap manure hauled six miles.

(b.) Apply the guano and bone in the spring, on the furrows, and work it under with the cultivator or harrow.

ASHES.

FRIEND BROWN:—I wish to inquire through the *Farmer* respecting ashes that has been in the ground for fifty years, whether there is any value to them or not as a manure? I have a large quantity which I wish to use, if of any value. S. S.

REMARKS.—The ashes you speak of will undoubtedly be worth collecting and using. If they have not been freely leached they are still quite valuable.

THE SHOE SHOP AND THE FARM.

MR. EDITOR:—Last spring I left the shoe shop for a farm, which I hired, and went into debt for tools, seed, &c., and notwithstanding the severe drought, I find I shall be able to make a good living. I have resolved to stick to the farm as long as I have been engaged in shoe-making, ten years, and read the *New England Farmer* every week, and if I make no more progress in farming than I have done this year, I shall have a comfortable home and living, and a far pleasanter occupation. Potatoes in this section are but little more than one-fourth the usual crop, although there is no appearance of disease.

Middleton, Vt., 1854.

J. H. R.

WHEAT.—It is estimated that the Canadas will raise the present season a surplus of 12,000,000 bushels of wheat, which, of course, will look abroad for a market. By the new reciprocity treaty, provincial grain and flour come into our market free of duty.—*Buffalo Courier*.

DOCKING HORSES USELESS AND BARBAROUS.

We are glad to see that the abominable practice of docking and nicking horses is getting out of fashion. It prevails in no country in the world but England and the United States: we got it from the mother country, and the sooner we leave it off, the better. It is wonderful how anybody but an ignorant, narrow-minded block-head of a jockey, should ever have thought of it, being as offensive to good taste as a violation to every humane feeling. Has nature done her work in such a bungling manner, in forming that paragon of animals, the horse, that he requires to have a large piece of bone chopped off with an axe, to reduce him to symmetry—or that beauty and grace can be obtained only by cutting a pair of its large muscles?

"The docking and nicking of horses," says an intelligent writer on Farriery, "is a cruel practice, and ought to be abandoned by the whole race of mankind. Every human being, possessed of a human heart and magnanimous mind, must confess that both the docking and nicking of horses is cruel; but that creature called man attempts thus to mend the works of his Almighty, wise creator—in doing which he often spoils and disfigures them. What is more beautiful than a fine horse, with an elegant long tail and flowing mane, waving in the sports of the wind, and exhibiting itself in a perfect state of nature? Besides, our Creator has given them to the horse for defence as well as beauty."

The same author relates an instance of a fine hunting horse owned by an Englishman, which could carry his rider over a five-barred gate with ease; but he thought the horse *did not carry as good a tail* as he wished,—he therefore had him nicked, and when the horse got well, he could scarcely carry him over *two bars*. "Thus," said he, "I have spoiled a fine horse; and no wonder, for it weakened him in his loins." Any man of common sense would give ten per cent. more for a fine horse whose tail had never been mutilated, than for one which had been under the hand of a jockey.

SOLIDIFIED MILK.

The last number of the *American Medical Monthly* contains an account of a visit made by a committee of medical gentlemen, appointed by the New York Academy of Medicine, to the establishment of Mr. Blatchford at Armenia, N. Y., (some 30 miles east of Poughkeepsie) where "solidified milk" is prepared. If the opinions expressed in the article referred to, respecting the value of this new description of food, are well founded, the juvenile population, at least of New York, may indulge in hearty self-congratulations; for "swill milk" has already committed appalling ravages in their ranks. The editor describes the process of solidification as follows:

To 122 lbs. of milk, 28 lbs. of Stuart's white sugar, were added, and a trivial proportion of bicarbonate of soda, a teaspoonful, merely enough to insure the neutralizing of any acidity, which in the summer season is exhibited even a few minutes after milking, although inappreciable to the organs of taste. The sweet milk was poured into evaporating pans of enamelled iron, embedded in

warm water heated by steam. A thermometer was immersed in each of these water baths, that, by frequent inspection, the temperature might not rise above the point which years of experience have shown advisable.

To facilitate the evaporation, by means of blowers and other ingenious apparatus, a current of air is established between the covers of the pans, and the solidifying milk. Connected with the steam engine is an arrangement for stirrers, for agitating the milk slightly while evaporating, and so gently as not to *churn* it. In about three hours the milk and sugar assumed a pasty consistency, and delighted the palates of all present. By constant manipulating and warming, it was reduced to a rich, creamy-looking powder; then exposed to the air to cool, weighed into parcels of a pound each, and by a press, with the force of a ton or two, made to assume the compact form of a tablet, (the size of a small brick) in which shape, covered with tin foil, it is presented to the public.

Some of the solidified milk, which had been grated and dissolved in water the evening previous, was found covered with a rich cream. This, skimmed off, was soon converted into excellent butter. Another solution was speedily converted into wine whey, by a treatment precisely similar to that employed in using ordinary milk. It fully equalled the expectation of all; so that solidified milk will hereafter rank among the necessary appendages of the sick room. In fine, this article makes paps, custards, puddings and cakes, equal to the best milk; and one may be sure it is an unadulterated article, obtained from well-pastured cattle, and not the produce of distillery slops; neither can it be watered.

For our steamships, our packets, for those travelling by land or by sea, for hotel purposes, or use in private families, for young or old, we recommend it cordially, as a substitute for fresh milk.

We look with interest for the scientific report of the Committee of the Academy of Medicine, in which we hope for an exposition of the domestic, culinary and hygienic properties of solidified milk.

Hog's LARD—It is stated that one establishment in Cincinnati last year tried out thirty thousand hogs. To carry on this immense business, they have seven large circular tanks, of sufficient capacity to hold fifteen thousand gallons each. They receive the entire carcass, with the exception of the hams, and the whole is subjected to steam process, under a pressure of seventy pounds to the square inch, the effect of which operation is to reduce the whole to one consistence, and every bone to powder. The effect is drawn off by cocks, and the residuum, a mass of earthy substance, as far as made use of, is taken away for manure. Besides the hogs which reach the factory in entire carcasses, the great mass of heads, ribs, backbones, trail pieces, feet, and other trimmings of the hogs cut up at different pork houses, are subjected to the same process, in order to extract every particle of grease. This concern will turn out this season three million six thousand pounds of lard, five-sixths of which is No 1. Nothing can surpass the purity and beauty of this lard, which is refined as well as made under steam processes. Six hundred hogs per day pass through these tanks one with another.

WHEAT TRADE.

The estimated extra breadth sown in the United Kingdom last season is *one-tenth above the average*, equal to 1,600,000 quarters. On the other hand, there is an excess of produce above the average, of from one-sixth to one-eighth. Taking the mean of one-seventh, our account of the present crop and stock stands as follows:—

	Quarters.
Average produce.....	16,000,000
Excess in breadth one-tenth.....	1,600,000
	17,600,000
Excess of produce one-seventh.....	2,514,285
Quarters.....	20,114,285

If to this we add one million and a half of foreign grain, we have an aggregate of 21,614,285 quarters to meet the consumption of the year, which is estimated at 21,000,000. There will still, however, be the usual stock of the country—now minus 5,000,000 quarters—to be made up. For it would be monstrous to suppose that in a country like this, there should be no stock on hand to fall back upon in an emergency. We shall, therefore, require an importation this year of from four to five million quarters, to place us in the average condition we have hitherto found ourselves in, in regard to the stock of wheat.

We shall next take a look round, and see how this supply is to be obtained. As we have just stated, any calculations for the future, founded upon the experience of the past, are not to be depended on. With present appearances, it is not at all likely that we shall obtain the usual supply from the Black Sea ports, even if the Danube is free to navigation, and the Crimea and Odessa were in the possession of the allies—as I hope will soon be the case. The consumption and waste of such large armaments, and the disarrangement of commerce and agriculture under the iron rule of war, to say nothing of the probable prohibition of the Czar to his subjects from supplying the allies, or conducting commerce with them from the interior—all these circumstances lead me to think that the quantity of wheat we shall obtain from Southern Russia this season, will be very small. And with respect to the Danubian Principalities, they have been for twelve months the seat of war, and are still occupied with vast armaments. Under the Russian coercive domination, neither agriculture nor commerce could be conducted with any regularity; and it is probable that not only was a large portion of the land left unsown last autumn, but that much of the growing crop has been destroyed by the military operations, and in furnishing the Russian cavalry with green food; for no economic considerations would, by any possibility, enter the mind of a Russian officer. We shall, therefore, have much less grain than usual from the Danubian and other Turkish Black Sea ports, *if we get any at all*, which is very doubtful.

From the Mediterranean ports, with the exception of Egypt and Syria, we shall obtain but little wheat. France and Italy are, for the present, closed against exportation by prohibitory laws. The former country, and the United Kingdom, has exhausted her stocks of old native wheat, and is compelled to fall at once upon the new crop, which, however good, will not be enough to meet the consumption, and provide the

usual reserve stock. It is probable that France and England will continue, as last year, to trade mutually with each other in wheat, according as the market fluctuates. If the price falls here below that in France, the latter will be buyers in our market, and *vice versa*.

With regard to the Baltic and Northern countries, with the exception of Russia, the stocks of old wheat are exhausted. Not only had the merchants the stimulus of high prices to induce them to ship to the utmost, but the insecurity, and the uncertainty as to what course the war would take, induced them to export to the last quarter to England and France, as the only countries where it would both be safe, and obtain remunerating prices. The crops in those countries are good, and we shall probably get an average quantity from thence, if no untoward events cause a blockade of the Baltic ports.

We now come to the United States of America; and if the accounts of the maize crop—and wheat also, in some parts of the Union—be correct, their prices will probably be too high this season to allow of their shipping more at any rate than the usual quantity this season. It is stated in the American papers, that the corn crop (maize) is at least one-fourth deficient, which amounts to 125,000,000 bushels, or 15,625,000 quarters.* And, with regard to wheat, in some of the Western States, where the largest quantity is raised, the crop is very deficient—in many cases amounting to a total failure. To what extent this may be the case, it is impossible to say; but, taking the deficiency in both crops into account, it must necessarily have its effect upon the price; and, unless our prices are higher than theirs, it will materially affect the export of wheat from the States, and also, probably, draw off a considerable portion of the supplies from Canada, where the crop is represented to be excellent.

Under these circumstances, I estimate the supplies for the next year as follows:—

	Quarters.
The Northern ports.....	1,750,000
Mediterranean.....	500,000
Black Sea do.....	300,000
United States.....	800,000
Canada.....	400,000
	3,750,000

This may probably be made up to four millions, from the quarters that do not come under the sections above given; but I cannot, by any possibility, see where we can increase that quantity, unless "a sudden transition from war to peace" should restore our Northern trade to its accustomed channels. However, with this quantity added to the abundant crop, we shall be able to reinstate the country in nearly the same condition as to stock, that it has usually held; and we need not fear that prices will materially fluctuate throughout the season.—*Mark Lane Express.*

* The corn (or maize) crop of last year was 500,000,000 bushels.

HAPPY TO HEAR IT.—MRS. FRANCES D. GAGE, of St. Louis, delivered the Address before the Washington County Agricultural Society, at its late annual show. This is said to be the first instance of the kind on record. Wish we had been there to listen to her.

LADY JANE.

The following beautiful verses, on a favorite Horse, were written by the late Mrs. Frances S. Osgood:

O, saw ye e'er creature so queenly, so fine,
As this dainty, aerial darling of mine?
With a toss of her mane, that is glossy as jet,
With a dance and a prance, and a frolic curvet,
She is off! She is stepping superbly away!
Her dark, speaking eye full of pride and of play.
O, she spurns the dull earth with a graceful disdain,
My fearless, my peerless, my loved Lady Jane!

Her sliden ears lifted when danger is nigh,
How kindles the light in her resolute eye!
How stately she paces, as if to the sound
Of a proud, martial melody playing around,
Now pauses at once, 'mid a light caracole,
To turn her mild glance on me beaming with soul;
Now fleet as a fairy, she speeds o'er the plain,
My darling, my treasure, my own Lady Jane!

Give her rein! let her go! Like a shaft from the bow,
Like a bird on the wing, she is speeding, I trow—
Light of heart, lithe of limb, with a spirit all fire,
Yet awayed and subdued by my idlest desire—
Though daring, yet docile, and sportive but true,
Her nature's the noblest that ever I knew.
How she flings back her head, in her dainty disdain!
My beauty! my graceful, my gay Lady Jane!

For the New England Farmer.

FAIR PREMIUMS.

MR. EDITOR:—During the course of twelve or fifteen years of experience and personal observation in regard to the distribution of "premiums" at our annual "Fairs," something has, in regard to merits and demerits, been learned. In going over a board of judges on premiums, of course we must expect that there will be about as many different ideas in regard to the articles to be judged as there are men to judge. Of course it will be understood that men acting as committees on premiums, will exercise their judgment in the most judicious manner possible. And yet each one will have his own peculiar way of thinking in the matter to be judged, and will do so in most cases conscientiously. There may be cases in point where men have showed a disposition to vary from this rule, but as a general thing I believe that an honest judgment is given, though it may err many times from a want of information on the subject in point. Many times "committees" occupy wrong positions—that is to say, they are placed where they should not be. This is not done by any influence of their own in getting the position as committee men, but more through the ignorance of others in placing them in that position—a position which, many times, they would be glad to be out of.

Taking all things into consideration, I believe that the great mass of men at our "Fairs" have justice done them, although I make exceptions to the rule. In looking over the list of premiums awarded at our late "State Fair at New Haven," my attention was called to some points which I have thought worthy of note. The awarding committee on agricultural implements and machines, seem to have lost sight of one important point; that is, the award of premiums appeared, in most cases, to have been given to exhibitors and dealers in farm implements and machines. Now every man must see at once that the premiums properly belong to the inventors, im-

provers, and manufactures of these implements, and not to the mere dealers. A simple "dealer" in farm implements and machines, buys and sell these articles to farmers at a "profit," and lives by it; of course this does not entitle him to the premiums that may be given on these implements and machines, as they belong to the inventor and manufacturer. If a dealer is an inventor and maker of these implements as well as seller, then, of course, he is entitled to the "merit" of his own productions. But this is not all. A dealer or operator in agricultural machines, if he get up a good exhibition of farm implements at a "Fair," should be rewarded by a special or discretionary premium by the committee. But the premiums properly belong to the inventors and manufacturers of such tools and machines.

If this principle be carried out of giving premiums to dealers and buyers instead of inventors, how long will it be before inventors and improvers will say, it is very little use for us to invent and bring out new tools, because "buyers and fore-stallers" get all the profits and glory? I have found that inventors and manufacturers of implements often think more of a premium or diploma awarded to them, than three times the price of the tools. This is all very natural, because it shows that their skill and inventive genius has been appreciated by the public at large. This principle is of more consequence, taking it in this connection, than many of us are willing to believe. There might have been awards made in other departments at our "Fair" quite as indirectly or injudiciously as in this case, but in all cases they were made in honor without doubt.

Yours truly, L. DURAND.

Derby, Ct., Oct., 1854.

THE HORSE KNOWN BY HIS EARS.

The size, position, and motion of the ears of a horse are important points. Those rather small than large, placed not too far apart, erect and quick in motion, indicate both breeding and spirit; and if a horse is in the frequent habit of carrying one ear forward and the other backward, and especially if he does so on a journey, he will generally possess both spirit and continuance.—The stretching of the ears in contrary directions shows that he is attentive to everything that is passing around him, and while he is doing this he cannot be much fatigued, nor likely soon to become so.

It has been remarked that few horses sleep without pointing one ear forward and the other backward, in order that they may receive notice of the approach of objects in any direction.—When horses or mules march in company at night, those in front direct their ears forward; and those in the middle of the train turn them laterally, thus to be actuated by one feeling which watches their general safety.

The ear of the horse is one of the most beautiful parts about him, and by this is the temper more surely indicated than by its motion. The ear is more intelligible even than the eye; and a person accustomed to the horse, can tell, by the expressive motion of that organ, almost all that he thinks or means. When a horse lays his ears flat back on his neck, he most assuredly is meditating mischief, and the bystander should beware

of his heels or his teeth. In play the ears will be laid back, but not so decidedly nor so long. A quick change in their position, and more particularly the expression of the eye at the time, will distinguish between playfulness and vice.

The hearing of the horse is remarkably acute. A thousand vibrations of the air, too slight to make any impression on the human ear, are readily perceived by him. It is well known to every hunting man, that the cry of hounds will be recognized by the horse, and his ears will be erect, and he will be all spirit and impatience, a considerable time before the rider is conscious of the least sound.—*The Horse and his Rider.*

CORRECTIVES OF SOILS.

It is not unfrequently the case that soils, which to a merely superficial examination appear to possess all the qualifications requisite to ensure a state of high and sustained fertility, are yet almost entirely sterile and unproductive, even under the best management that can be adopted. Such lands, however, are by no means valueless. Their sterility is the result either of some bad ingredient, or the excess of some valuable constituent, the presence of which has not been ascertained by the cultivator, and which disappoints his expectations and efforts alike, whether the radical cause be a mystery, or the proper remedy unknown. Among the many causes operating to produce an unkindly constitution, we may in the first place, mention the presence of iron in its acid combinations. In this case, we generally detect by the aid of chemistry, the presence of cop-peras—sulphate of iron. And when, upon examining specimens of a sterile soil by washing, we detect the salts of iron, or any acid matter, we may be assured that the proper, and indeed, the only efficient corrective to be applied is *lime*. This mineral will convert the sulphate of iron into manure, and so far neutralizes the acid as to render it harmless to the crop.

In some soils we detect an excess of calcareous matter—generally in the form of lime or chalk. In this case recourse must be had to some putrescent and easily decomposable *acid*; clay or sand in which there exists a considerable quantity of oxide of iron. Blacksmith's sweepings constitute also a valuable ameliorant; but on applying it to the soil, it should never contain more than one-twentieth part of oxide of iron, as too large a percentage would be disastrous rather than genial in its results. There are other correctives which may be advantageously used in such cases; as for instance, chalybeate water, (water impregnated with iron) and peat containing vitriolic, (i. e. sulphuric) salts. The effect of these is to change the lime or chalk contained in the soil, into that well-known and salutary substance called *gypsum*, or plaster of paris, the beneficial effects of which on the vegetable system are appreciated by all.

Carbonate of lime—lime and charcoal united—is sometimes found in soils in large quantities, and when such is the fact, gypsum applied as a manure and oxide of iron, as a *corrective*, produce the best effects. "Carbonate of lime is mild lime, in combination with charcoal, absorbed from decayed vegetable or animal matter." Where there is an excess of humus—soluble or insoluble—an effectual remedy is found in paring and burning. The practice is common with us of piling and burning the turfs, roots, &c.; but we carry the process further, and more effectually, by bogging or plowing, and adding sand or gravel, which wonderfully facilitates the power of the soil to yield a crop. The humus, or peat mud, has an abundance of potash, which, coming in contact with the sand applied, renders it soluble, and this furnishes another important element, silicon, which the plant must have before it can be perfected. We seem to have advanced beyond the English practice, in the reclamation of bog meadows.

In the improvement of low, peaty or marshy lands, which produce aquatic plants, the initial step in improvement is draining. After this, if the soil be *foul*, or to any extent infested with rushes, flags, or other similar productions, it will perhaps, be judicious to pare off a thick turf and burn it. And in connection with this important branch of rude amelioration, is a process by which quick lime is substituted for fire, in burning peaty soils. In some experiments made before the "Worthington Agricultural Society," the action of the lime was found to be very efficient, and gave the most perfect satisfaction to all who witnessed the process.

The productiveness of peaty soils, after being drained, is often very considerably increased by the application of clay or sand as a top dressing. When they contain ferruginous salts, as is not unfrequently the case, lime is absolutely necessary in reducing them to profitable cultivation. As thoroughness is at all times desirable in matters of this kind, the surface of the land should be completely freed from all substances which can in any way operate as an obstacle to successful cultivation. If the ground be incumbered with roots, they should be extracted and burned; if the surface be rough, the inequalities must be overcome by plowing, harrowing and rolling. But above all they must be thoroughly and systematically drained.

In reference to turning in green crops as a manure, we shall, perhaps, be pardoned for introducing in this place a few remarks of Sir HUMPHRY DAVY, whose observation on any specific subject of agricultural improvement, few, probably, will question.

"When green crops are to be employed for enriching a soil, they should be plowed in, if possi-

ble, when the flower is opening; for in this stage they contain the largest quantity of soluble matter. Green crops, pond weeds, the parings of hedges or ditches, or any kind of fresh vegetable matter, not woody, require no preparation to be fitted for manure. When old pastures are broken up for tillage, not only is the soil enriched by the death and slow decay of the plants which have previously deposited soluble matter in the clod; but the leaves and roots of the grasses (vegetating just before the change of culture) afford saccharine, mucilaginous, and extractive matters, which become immediately the food of the crop; also the gradual decomposition of the grasses afford a supply of vegetable mould for several years."

THE SIGNS OF THE THRIFTY FARMER.

That some farmers thrive while others seem just to drag along is a palpable notoriety. In looking round among our farmers and noticing their operations, we have concluded that we could tell the thrifty farmer by a few unmistakable signs, even if we know but little about his affairs. You will notice something in his appearance, or the ideas which he appears to be following out, which will tell plainly enough that the farmer is getting ahead in the world.

What are the signs? They are not seen in the richness of his dress or the equipage with which he appears abroad, or in the display which he makes in public places. We have seen farmers out in even splendid attire with fast horses and fine trappings and carriages, who are slovenish farmers, and whose out-standing debts would more than swing the homestead. No, no; we do not take such things for evidence of the farmer's thrift. Then again we do not allow that it is any sign that he is getting "fore hand" when he is seen trading and trafficking, buying, selling and swapping horses, oxen, &c., even though he be a sharper and makes what he calls good trades. Such very frequently go "astern" by wasting their time in hunting up good bargains and neglecting their farms. These farmers do not love their farming; and they sell the sure gain and large profits of cultivation for a trifling present advantage, often purchased at the expense of conscience and moral honesty. Rather such symptoms are indicative of a want of thrift and healthy prosperity.

But when we see a farmer bending all his energies to improve his farm, and making inquiries as to the best methods of husbandry, patronizing agricultural papers, and taking a due interest in agricultural fairs, associations, &c.; when we hear him inquiring for improved stock, seeds, and fruit trees, we say that man is bound to prosper. Then when his teams are seen round the market places loaded with manure, ashes or other refuse matter which can be used to improve the soil, or when engaged on a liberal scale in drawing muck, turf or the like into his yard and filling his manure vats with it, we set it down that he is growing rich. Although he is making great outlays in purchasing and preparing artificial manures, we can not help thinking that he is putting capital into a bank that will yield great dividends.

The farmer who will excel and thrive *must* be a farmer, and give his thought and study and effort to his calling, the same as the eminent physician, lawyer or clergyman gives all his energies to his profession. When this is the case he will show it, and will be as proud of his farm frock as the parson of his cloak. He will not be clownish or indifferent to his outward appearance, but he will not be ashamed to be found dressed suitably for the farm. He will feel as easy and as much at home in his working garb when visited, as the merchant is behind his counter, or the lawyer in his office. When we meet a farmer about his appropriate business who holds up his head and shows a manly dignity, and yet courteous, if thrown among gentlemen of the cloth, we conclude, that there is a man who values his manhood, and is proud of his noble calling: that is the man who will thrive and secure a plentiful board for himself and family, and contribute something towards the support of the rest of mankind.—*Farmer and Mechanic, Lewiston Falls, Maine.*

For the New England Farmer.

STATE FARM AT TEWKSBURY ONCE MORE.

MESSENGERS. EDITORS:—I admire the benevolence of the good Dr. B. in his willingness "to render services to the poor gratis." Such is the character of all eminent in his profession. I sincerely believe there exists in the breasts of high-minded physicians more generous sympathy than in any other class in the community, not more numerous. Whether their judgment of soils is equally to be relied on, I shall have some doubt, if this Dr. shall continue to say that the soil about this State Alms House, or anywhere within one hundred yards of it, is worth cultivating, or can be made so at any reasonable expense. I have seen this soil several times of late, and have inquired its character of others, who understand the subject much better than I do, and the uniform testimony is that it is *miserably poor*.

As to the interior arrangements of the establishment, I have not seen them. All I can say is, if they afford decent accommodations for 600 inmates, it shows that these State agents can build, for the same money, ten times the accommodations that the agents of the adjoining county build for theirs. I have heard of wells, 50 feet deep, having been dug, bricked and cemented, from bottom to top, without a bucket of water therein except what rained in from the heavens above. Whether this is the class of wells the doctor spoke of improving, I should like to be advised; and if he will tell me how such improvements can be made effectual for an adequate supply of pure water, I will tender him a fee in advance.

Mind you, Mr. Editor, I do not attach any blame to the Dr. in this matter, knowing that he had no hand in the structure; I only blame him for giving the high influence of his name to bolster up and justify an egregious folly.

Oct. 27th, 1854.

WORTH KNOWING.—It is said that a small piece of resin dipped in the water which is placed in a vessel on the stove, will add a peculiar property to the atmosphere of the room, which will give

relief to persons troubled with a cough. The heat of the water is sufficient to throw off the aroma of the resin, and gives the same relief as is afforded by a combustion of the resin. It is preferable to the combustion, because the evaporation is more durable. The same resin may be used for weeks.

EXTRACTS AND REPLIES.

LIME FROM GAS WORKS.

MR. EDITOR:—Please inform me what the lime, after being used for making gas, is worth, compared with stable manure?

Would it not improve pasture and mowing, if spread on them this fall, and if so, how much to the acre?

Would it benefit corn and potatoes next season, if spread and plowed in this fall?

I have used some of the lime the past season, for turnips, both rutabagas and flat, but it did not answer. Either I put on too much, or it was the dry weather—the seed did not come up; where I used ashes they have done very well. T. M.

New London, Oct. 27th, 1854.

SALT LYE—GAS LIME.

MR. BROWN:—I want information in relation to an article made at the hard soap manufacturers, and called by them, (at least in Hartford,) salt ley. What is its value compared with stable manure, or with the same bulk of night soil? What is the best use I can make of it? My soil is a sandy loam; swamp muck costs me, delivered, 25 to 30 cents per load. Shall I pile it up, and turn the ley top of it? How much ley will it take to fertilize, in the most economical degree, a cord of muck? How much should be applied to the acre for corn? would you advise to spread on or put in the hill? Or is it better adapted to some other crop? How would it answer for cabbages?

Would ammoniacal liquor or gas lime be suitable articles to apply to a compost heap in connection with the ley? J. R. S.

East Hartford, Conn., 1854.

REMARKS.—Will some of our correspondents, acquainted with the subjects, reply to the questions in the two letters given above?

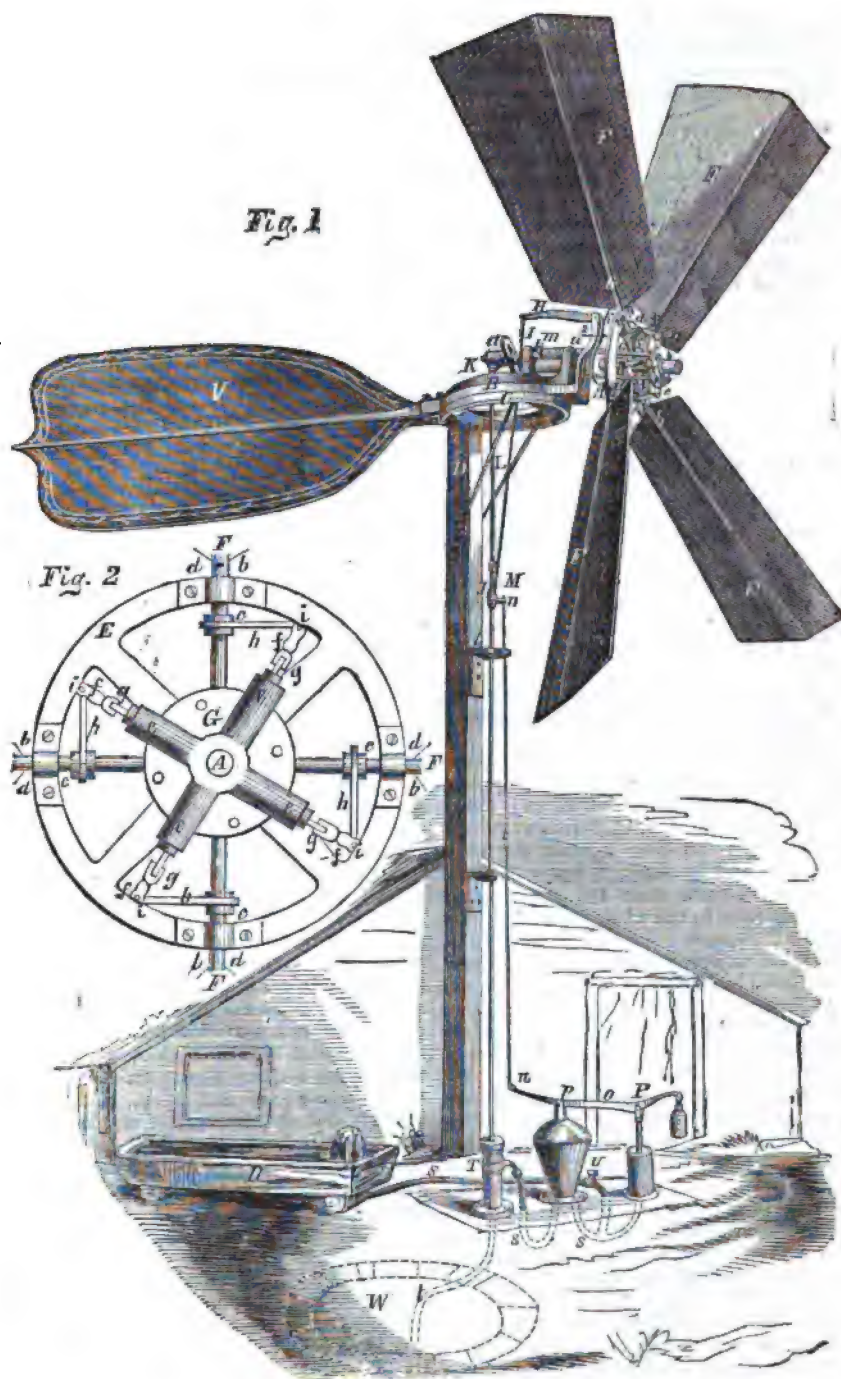
EARLY PEAS.

MR. EDITOR:—I should like some light on raising early peas. Is it better to stick or rod them, or not? Which way do our market-gardeners do, with or without sticks? A. B.

Fitchburg, Oct., 1854.

REMARKS.—To be successful in producing early peas, the first thing necessary is to get an early kind, and sow early. The product will probably be much larger, if they are provided with sticks. If "pea-brush" is convenient, use it. Make the experiment yourself, on the same land, crop manured alike, and sow at the same time, with the brush, and without it, and let us know the result next August. Will you?

The number of hogs in the United States is said to exceed that of sheep by ten millions.



IMPROVED GOVERNOR FOR WIND MILLS.

IMPROVED GOVERNOR FOR WIND MILLS.

We make no apology for occupying so much space with a description of this Wind Mill, believing that the best machine of this kind will be one of great service to the farmer. The description we copy from the *Scientific American*.

The annexed engravings are views of an improvement in Wind Mills, for which a patent was granted to Daniel Halladay, of Ellington, Conn., on the 24th of August last.

Figure 1 is a perspective view, and figure 2 is a face view of the wing or sail ring, and parts of the governor. The same letters refer to like parts.

The nature of the invention consists in having the wings or sails attached to movable or rotating spindles, having levers or equivalent devices connected to them, said levers being also connected to a head with wings rotating on the same shaft. The head has a lever connected to it, which is operated by a governor that slides the head upon the shaft, and causes the levers or their equivalents to turn the wings or sails, so as to present a proper resisting surface to the wind, and thereby produce a uniform velocity of the sails, which are made to have a greater or less obliquity, according to the velocity of the wind.

A represents a horizontal shaft which works in suitable bearings, *a a*, upon a cap, B, said cap, working loosely upon a circular plate attached permanently to a proper support or frame work, D, figure 1.

The shaft, A, projects some distance beyond the edge of the cap, B, and has a wheel, E, figure 2, attached permanently to it.

F represents the wings or sails which are secured to spindles, *b*, said spindles passing radially through the rim of the wheel, E, and into its hub, the spindles being prevented from withdrawing by collars, *c*, which bear against the inner edge of the rim and bearings, *d*, figure 3, which are secured by screws over the spindles, the spindles being loose in the wheel, E, and allowed to turn upon their axes. Four wings or sails are represented, but any proper number may be used. G is a hub fitted loosely upon the shaft, A, and having projections, *e*, at its front end, to which projections small levers, *f*, are attached by pivots, *g*, the outer ends of the small levers, *f*, being secured to the ends of levers, *h*, by pivots, *i*. The levers, *h*, are secured permanently to the spindles, *b*, as shown in figure 2. The inner end of G has a groove *j*, turned on it, in which groove a forked lever, H, fits, figure 1. The lever, H, is bent, and has its fulcrum at *k*, and to the outer end of it a wire or rod, I, is attached, said wire or rod passing down in a groove, *l*, in a vertical rod, J, the upper end of which is connected to a crank, K, on the inner end of the shaft, A, by a connecting rod, L. The lower end of the wire or rod, I, is attached to a sliding head or boss, M; on the rod, J, *m*, is a spring, one end of which is connected to a vertical portion of the bent lever, H, and the opposite end to a projection on the inner bearing, *a*, of the shaft, A. The sliding head or boss, M, on the rod, J, has a recess, *n*, in it, in which a fork at one end of a lever, O, fits, said lever having its fulcrum at *p*. The opposite end of the lever, O, is attached by a pivot

to a piston rod, P, the piston of which works within a cylinder. R is a reservoir containing water, and S is a pipe which projects over the top of said reservoir; the opposite end of the pipe communicates with the outside cylinder, reservoir, R, and a pump, T, at their bottoms, as in dotted lines, figure 1. The rod, J, it will be seen, is the piston rod of the pump, T; U is a cock in the pipe, S; V is a horizontal wing attached to the cap, B, for the purpose of keeping the wings or sails, F, facing the wind. In case the shaft, A, revolves too rapidly, the cock, U, is somewhat turned so as to check the free passage of water through the pipe, S, and the water will then be forced against the under side of the piston of the outside cylinder, and will raise it, and the head or boss, M, will consequently be moved down upon the rod, J, and the wire or rod, I, will draw downward the horizontal arm of the lever, H, while the vertical arm will force outward the head, G, on the shaft. A, arrow 2, and the levers, *f h*, will turn the spindles, *b*, and the wings or sails, F, move obliquely to the wind, and the motion of the mill will be decreased in a corresponding degree. When it is desired to increase the motion of the mill, the cock, U, is opened, and the water having a free passage through the pipe, S, the head or boss, M, is raised upon the rod, J, and the head, G, on the shaft, A, brought back to its original position by the spring, *m*, the wings or sails presenting a greater surface to the wind. The spring, W, causes the lever, O, to resume its original position, or depresses the piston in the outside cylinder, when the water has a free passage through the pipe, S.

In figure 1 the pump is represented as drawing water through the suction pipe, *t*, from a well, W, and forcing it through the air chamber into the reservoir. A crank being on the shaft, A, on the horizontal revolving head, and the rod, I, connected to this crank, a reciprocating motion is given to the piston of the pump, thus drawing and forcing out the water by single stroke alternately. With one valve opening inwards, and one outwards in the bed plate of the pump cylinder, it can work as a single-acting force pump, driving the water through the air chamber into the reservoir without any other connections or apparatus. This windmill is chiefly intended for farmers where a moderate power is required, and can be applied to various kinds of work, as well as pumping water. The claim is for "attaching the spindles, *b*, of the wings, F, to the sliding head, G, by the levers, *h f*, and operating said head by the lever, H, and a governor of any proper construction for the purpose of giving the desired obliquity to the wings or sails, thereby insuring an equal motion and power during the variable velocity of the wind." One of these machines is on exhibition at the New York State Fair, in this city.

More information may be obtained by letter, addressed to Halladay, McCray & Co., at Ellington, Conn.

SINGULAR CASE. — The *Hallowell Gazette* tells the following story:

"A yearling steer belonging to Mr. Asa Morrill of Manchester, Me., was found in the pasture of Ephraim Wadsworth of Litchfield, on Wednesday, 37th ult., nearly embedded in a quagmire. He

had been missed sixteen days and it is supposed that he was in the mud all the time. His head resting on the dry ground he was enabled to reach some bushes and thus preserved his life. He is now doing nicely."

For the New England Farmer.

THE BEAUTIES OF NATURE.

The lover of the beautiful in Nature searches not in vain at any season of the year, among her various operations, for something to awaken within his bosom those blissful emotions, which nought but the beautiful can awaken, and which, to those who experience them, are of more value than rubies. Sweet spring comes, and with its warm breath dissolves the snows of winter, melts the frozen lakes, unchains the ice-bound streams, which, as if glad of their release, make joyous music as they rush impetuously o'er their rocky mountain beds, or wind their way through the quiet valleys. And as it continues to breathe upon the earth, it wakens into life innumerable forms of beauty, from the tender grass beneath our feet, to the tall, majestic tree of the forest. How fresh and animated Nature now appears, as she arrays herself in her summer dress of green! What delicate forms and exquisite colors the flowers assume, as they unfold their soft petals to the genial sun! Beautiful birds, arriving from their distant southern homes, visit again their old haunts in

"The orchard, the meadow, the deep-tangled wildwood,"

and waken, with their melodious songs, the long-silent echoes of the woods and fields.

The glorious summer comes; and now the leaves of trees and plants having attained their growth, assume a darker and richer green; the growing grass and grain begin to wave luxuriantly in the soft summer wind. The flocks and herds are quietly grazing in their green pastures upon the hills, or reposing beneath some shady grove. And now let the child of nature go forth into the fields or ascend some height,

"And view the landscape o'er."

or stand beside rushing cataracts, or wander far away into the dim old woods, and if, by what he sees or hears, his heart is not stirred within him, the beauties of nature can have little or no charms for him.

But nature pauses not, and summer soon ripens into mild autumn. The tall grass and golden grain have fallen before the scythe and sickle; the delicious, red, yellow and purple fruit is being gathered from the trees and vines. There is but here and there a flower, and these are of less brilliant hues than those of summer. The birds, many of them have ceased their songs and flown to warmer skies. But Nature, as if to compensate for the dreary aspect of the fields, and the silence of the groves, now arrays herself in a most gorgeous robe of red and yellow, brown and green, with all their different shades and combinations. Let us now ascend some neighboring hill or mountain, and gaze upon the glorious picture spread out before us—such a picture as no mortal hand can paint! How beautifully the dark green pine, spruce and hemlock contrast with the red maple and oak, the brown and yellow chestnut, hickory and beech. And what words can describe the en-

chanting beauty of the woodland lake as it mirrors on its glassy surface, this wondrous scene! But

"Leaves have their time to fall,
And flowers to wither at the north wind's breath;"

autumn swiftly recedes before stern winter's icy tread. And some may ask, "Where now are the beauties of nature?" As I have said before, he that hath the spirit of beauty abiding in his soul, seldom passes a day, or hour, wherein he cannot find something in the outward world, which answers to the spirit within. The hoar frost is beautiful as it glistens upon every twig and spire of grass, in the sun's morning rays. And so is the virgin snow as it spreads its soft white mantle upon the ground. But when winter holds his jubilee, and reveals his "countless treasures," when on some keen, clear morning,

"We waken to a world of ice;"

when every object, high and low, is covered with a thick, icy coating, and the sun, in cloudless splendor, shines upon the scene, who then can ask—"Where is the beautiful?"

"A shower of gems is strewed around;
The flowers of winter, rich and rare;
Rubies and sapphires deck the ground;
The topaz, emerald, all are there.

"The morning sun, with cloudless rays,
His powerless splendor round us streams;
From crusted boughs, and twinkling sprays,
Fly back unloosed the rainbow beams."

And nature also, as if to make up for the loss of some of her charms on earth, now imparts new beauties to the heavens; she gives to the skies a deeper blue, adds new brilliancy to the stars; and paints the morning and evening clouds with fresher, brighter tints. Not only does Nature with lavish hand scatter her beauties o'er the land, but the sea also, she has filled with them:

"The sea! the sea! the open sea!
The blue! the fresh! the ever free!"

conceals in its heaving bosom, and strews along storm-beaten shores, many things both animate and inanimate.

How kind in our heavenly Father to give us,—not only the necessities and comforts of life,—but also to satisfy to so great a degree, the inward longings of our souls for the beautiful and sublime. While gazing upon some beautiful scene in nature, or listening to some enchanting song, how often has the thought arisen—what, O, what must be the beauties, the melodies of "those everlasting gardens where angels walk," where resides the Author of all beauty, and harmony, if to sinful men is given such sweet music, such glorious scenes? S. L. WHITE.

Groton, Oct., 1854.

For the New England Farmer.

FOREST TREES.

FRIEND BROWN:—In answer to your correspondent "C. W." of Johnston, Vt., I would say that pine seeds should be sown at about the time they fall from the tree, which is in August and September for the white pine, and from November to April for pitch pine. August is the time to save the seed of the white pine, and this kind of pine is preferable to sow, as it is best for lumber, and leaves the land in much the best condition

for crops after the wood is off. The best young lot of pine seedlings I have ever seen, was sown with a crop of rye, after the rye was up; but they do well when put on any newly harrowed land without any covering. B. F. CUTLER.

Pelham, N. H., Oct. 23, 1854.

UNITED STATES CATTLE SHOW.

THE NATIONAL AGRICULTURAL BANQUET—LIST OF PREMIUMS AWARDED.

The first *National Cattle Show* ever held in this country took place at Springfield, Ohio, under the auspices of the United States Agricultural Society, Oct. 25, 26 and 27, 1854. We have conversed with several gentlemen who were present on the occasion, who state that the show of cattle surpassed anything they had seen before. Gentlemen from England also stated that in their opinion so fine an exhibition of pure blood stock could not be made in that country, so great has been the draft upon their best animals for several years past.

The occasion was one of pleasant meetings and congratulations between persons engaged in the noble cause from all parts of our own country, and with those, even, from other countries, which can not fail to exert a most happy influence upon all. We are glad to encourage every peaceful occasion which will bring our people together from the various parts of the Union, believing that thereby our common interests will be promoted, and that many existing prejudices will be softened or entirely obliterated. We wish our limits would permit us to give several of the speeches made at the festive board, among which was a capital one by CASSIUS M. CLAY, but they will not. Below, we give the opening remarks of our fellow-citizen, the Hon. MARSHALL P. WILDER, President of the Society, and which the editor of the *Republic*, published at Springfield, says were delivered in "a dignified and eloquent style." They certainly are appropriate to the occasion, and manifest an earnestness in the cause worthy of imitation.

SPRINGFIELD, Oct. 26.—The Grand National Banquet, given by the officers and members of the United States Agricultural Society, took place this afternoon, upon the grounds of the Cattle Exhibition of the Society, and was an event long to be remembered by those who participated, and worthy of the great object that had collected together, from various portions of the country, so many distinguished gentlemen and eminent agriculturists.

A large pavilion, one hundred feet long and about sixty wide, built of wood and covered with canvas, was erected on the ground. Inside was arranged several tables, capable of seating one thousand persons comfortably, and cross-tables at the west end for the officers, invited guests and committees. Pursuant to the announcement of the Committee of Arrangements, a procession was formed on the front part of the ground, and prece-

ded by a band of music, marched to the Banquet pavilion. First came the officers of the Society; next the invited guests; next the judges, committees, and then followed the public at large.

The tables were spread with profusion, and most admirably arranged. No liquors were used; a large number of ladies were present, and added much to the interest of the scene.

The Hon. MARSHALL P. WILDER, President of the United States Agricultural Society, presided; and, on his right and left, were seated the invited guests and officers of the Society.

After the asking of a blessing by the Rev. Mr. WHITE, of Springfield, the assemblage disposed of the viands with much zest and spirit. When the repast was concluded, the President, Mr. Wilder, rose and spoke as follows:

FRIENDS OF AGRICULTURE AND FELLOW CITIZENS:—In behalf of the United States Agricultural Society, under whose auspices this exhibition is held—in behalf of the citizens of Springfield, by whose liberality we are here assembled—and in my own behalf, I present you cordial salutations, and bid you welcome to this our festive board.

Come ye from the Pilgrim shores of New England, from the plantations of the sunny South, from the great valley and fertile fields of the West! Come ye from the walks of professional life, from the halls of legislation, from the marts of business, or from the high places of power—from whatever section of our land, from whatever station of society, welcome—a right hearty welcome—to the joys and pleasures of this occasion.

We have suspended our ordinary cares, toils and conflicts of business, and come up to this thriving city from our different and distant homes, to give expression to a common and important sentiment—the love of Agriculture.

We meet here for no sinister motive, no sectional object, no partizan purpose. We stand here upon a platform, broader, deeper and firmer than that of any politician or partizan; a platform upon which these may stand side by side with the noble yeomanry of our country, honoring them and honored by them. We are here for the promotion of a department of that great art, upon which, more than upon any other, depend individual happiness and national wealth, prosperity and power; an art which is the parent of every other industrial pursuit, and to which the special blessing of Heaven is vouchsafed.

I congratulate you upon the great interest awakened, in our age and country, in the cause of Agriculture; an interest manifested by the multiplication of societies and periodicals throughout the land. I congratulate you upon the wonderful improvement which science has recently made in the implements of husbandry, and in the arts of cultivation—upon the facilities for the transportation of agricultural products to the great markets of the world—and especially upon the improvement of our domestic animals, and the laudable enthusiasm which many of our worthy citizens have manifested in the importation of the best breeds of cattle.

It was the latter that suggested the idea of this exhibition, and it was deemed suitable by the Executive of the United States Agricultural Society to encourage this praiseworthy enterprise, and to accept the generous invitation of its projectors,

approved as it was by the Ohio State Board of Agriculture.

This is the first National Exhibition of Cattle ever held in America; and I do but express the common sentiment of this assemblage, when I say that it has more than realized the anticipation of all concerned. It has been eminently successful, and alike honorable to the citizens of Springfield, to the State of Ohio, and to this great Republic.

There have been about two hundred entries at this show. Among them we have seen such samples of the Durhams, the Herefords, the Devons, the Ayrshires, the Jerseys, and grade animals, as it has seldom or never been the happiness of man to behold in one show; and larger premiums have been offered for the encouragement of that department of American husbandry than ever before excited competition.

Among so many specimens of rare excellence, no wonder that the judges have found it difficult to decide upon their respective merits. Our only regret is that premiums cannot be awarded to each competitor. But there is one honor which seems sufficient to satisfy the ambition of any one, the honor of adding to the interest of this exhibition, and of thus promoting a pursuit second to no other in the country.

The report of these proceedings will occupy an important place in the transactions of this Society, and will go down to posterity honorably associated with the history of this place, and of American agriculture.

And here permit me to tender our most cordial thanks to the donors whose liberal contributions have supplied the funds for this exhibition, to its Board of Officers and Managers, to whose skill in designing, and whose energy in execution, we are so much indebted for the order, convenience and taste, which have characterized these proceedings, to the judges, on whom has devolved the onerous duty of awarding premiums; to the contributors, who so nobly have endured the risk and expense of placing their valuable animals on exhibition. Especially do we present our heartfelt acknowledgments to our distinguished guests who have honored us by their presence, and who, we trust, will instruct and encourage us by their speeches; to the good citizens of Springfield and vicinity, whose large hospitality we have enjoyed; and last, but first in our affections, to the ladies, whose presence adds so much to the interest and beauty of this banquet, and whose approving smiles encourage us in all the laudable pursuits of life.

Friends and Fellow-citizens:—In conclusion, permit me to extend to you the right hand of fellowship, and to invoke your aid in favor of the cause we seek to promote. While the nations of the Old World seek for glory in war and the acquisitions of the sword, let us cultivate the arts of peace, and let us remember that the history of a prosperous people is inscribed, not on the star spangled banner of military fame, or of political preferment and power, but it is seen in the peaceful triumphs of the plow, in fields of waving grass and grain, in thriving flocks and herds, in highly cultivated farms and gardens, in the refined arts of rural life and cultivated taste, and in the grateful incense which rises from the altars of an industrious, intelligent and virtuous yeomanry.

Mr. Wilder's remarks were received with interruptions of applause, and demonstrations of high approbation rent the welkin as he sat down.

The scene was for a few moments enlivened with some music, when the President read the regular toasts:

1st Regular Toast—The State of Ohio: it was her mission to lead in the march of civilization and improvement; well has she fulfilled the high trust—long may she reap the rich harvest of her planting.

Gov. Medill being absent, the Hon. L. D. Campbell, of Butler county, was called for to respond.

He said he regretted that the Chief Executive of the State was not present to reply to the toast. He regretted that one more competent had not been called upon. "I am not prepared," said he, "to discuss the great matter of the age—agriculture—and in relation to the different breeds of cattle, I am, emphatically, a 'Know-Nothing.'" He then spoke of the importance of sustaining, by the aid of General Government, the great cause of Agriculture. Millions were annually spent by Government, but nothing done to advance agriculture; it was because the people had not spoken. "Some raised constitutional objections, but," said he, "it could not be possible that our forefathers, in framing the constitution, intended to deprive us of advancing in agriculture. Congress appropriates for coast surveys, and a thousand other things, but what do they do for agriculture? They purchase a few seeds, and after distribution we find one paper of cabbage seeds to every 5,000 farmers. But this very fact proves there is power in Congress to promote agricultural interests. The people," he urged, "should speak at the ballot box—agriculture should be made a political test."

Mr. Campbell's remarks were received with considerable applause.

2d Toast—The city of Springfield: Springfield in Massachusetts, and Springfield in Ohio, renowned in the history of American agriculture—the mother giving birth to the first National Show of Horses; the daughter for giving birth to twins—the first National Cattle Show, and the first National Exhibition of Babies.

Responded to by Mr. Mason, of Springfield, who, after a few remarks, gave—

"Our Country: Whatever may belong to imported cattle, it is to the native born American citizens it must depend on for its prosperity."

3d Toast—The Ohio Board of Agriculture: The uniform friend of agriculture and rural economy. The annals of our country attest the value of its labors—may it never lack the sunshine of public patronage, or an abundant harvest of well-earned renown.

General Worthington, in behalf of the Ohio Board of Agriculture, responded in a brief and happy speech, and welcomed the guests and visitors from abroad.

4th Toast:—The Mississippi Valley—The great granary of Uncle Sam's Farm—Like the store-houses of Egypt, let years of plenty fill it to overflowing, and may it never lack a *Joseph* to wisely dispense its abundance.

The President said he would call upon our Brother *Joseph*, the Governor of Indiana, to respond to this sentiment.

Gov. Wright said that probably it would have

been better to have called up a brother Jacob, for though Jacob served 14 years for his wife, he had to serve 6 for his cattle. It was pleasing to him, to unite with so many agriculturists on this festive occasion. It would appear as though we have nothing but bank failures now-a-days; but these unions of the people show that the proper spirit is aroused. The Yankees have only one idea, and that is "tu hum." He wished the people of the West had more of that spirit. Politicians have taught the people two ideas—Washington City and the Penitentiary. He recommended electing the best men to county offices, and sending the worst stock to Congress. Home affairs he thought more essential to be attended to, than general legislation. Gov. Wright concluded by giving the following toast:

"The U. S. Agricultural Banquet—A union this day of the citizens of 18 States: may these associations continue to increase and multiply until we shall meet at the annual festivals, the citizens of each State of this Republic, and greet each other not as members of different sections of the country, but as citizens known and recognized by that proud and higher name, an American citizen."

Mr. Brown, President of the Illinois Agricultural Society, was then called for. He referred to the Mississippi Valley, its present and future progress in Agricultural art, and delivered a very good practical address, considering, as he said himself, he was no orator, but an agricultural laborer.

Hon. R. Moore, President of the Michigan State Agricultural Society, was next called for. He said he was a laboring man, a mechanic, and as there were better speakers present, he preferred listening to speaking. He concluded with the following toast—

"Michigan hithed in the traces of Agriculture, may she never balk."

6th Toast: The State of Kentucky—Renowned for the valor of her sons, and the profound wisdom of her great statesmen; among her illustrious yeomanry whom we cordially welcome to our board, we are happy to recognize her Brutus and Cassius, more noble than their namesakes in Roman history.

Cassius M. Clay, was vociferously called for, and was greeted with a hearty welcome. Mr. Clay made a pertinent and happy speech. Kentucky, he said, thought Cassius crazy, but the late change of events had probably not left him in the position of the one man who thought all the world crazy. He loved Kentucky and served her, but because he loved her more, he has been unable to praise her. As a representative of that State he could not agree that she was wanting in merit, for she built the first railroad in the West, and makes two blades of grass grow where one grew, besides making two pounds of good beef where one was before. Mr. Clay spoke for some time, and was listened to with much attention, and concluded by saying that he regretted Kentucky could not stand upon the same footing as the northern States in mechanics and manufactures.

Brutus J. Clay was called for, but he said "one in the family was enough," and declined speaking.

6th Toast.—The true conqueror—he defends

the soil and renders it more worthy of defence; but he is the most useful and glorious of all conquerors who conquers a stubborn soil, and who, by enriching and deepening it, adds to our country a better and more permanent domain, than he who merely enlarges its surface.

Response, by Col. Williams, of Kentucky. The Col. impressed upon the minds of all, that his spear was converted into a pruning hook, and his sword into a plowshare. He referred to the advantages of association in agricultural societies, the interchange of views, and the benefits the farmer of small means would derive by experimental adventures of the capitalist. The commingling of the North and the South, on occasion of the present time, was alluded to by the Colonel, who soundly belabored politicians and the press for their horrible action, misrepresentation and libel upon the inhabitants of both great sections of this star-spangled land.

7th Toast.—The British Colonies in America and the United States: closely bound together by rural pursuits, brought nearer by the wonderful achievements of science, and held fast by the golden links of commerce—one in origin, one in interest, and one in destiny.

Responded to by Mr. Isaac Askew, of Windsor, Canada West. He said, if ever he needed courage during his life, he needed it then. Being a North of England man, and as he noticed a number of editors and reporters present, he desired them to pay particular attention to his pronunciation of the H. (Your reporter noticed several other singular familiarities he took with the English language.) He made an excellent and useful speech, and in referring to the Reciprocity Treaty, spoke of it as the matrimonial alliance created by the Governor of Canada and the President of the United States. He did not desire to go into ecclesiastical matters, but said he would here publish the banns of the marriage, and would say, "If you know of any just impediment, now speak, or forever after hold your peace." (Great cheering.) After briefly referring to the mutual interest of the two countries in agricultural affairs, he said that he had never seen such an exhibition of cattle, especially short-horned, in this or any other country. Mr. Askew gave the Kentuckians a humorous rub upon the appearance of their stock—for "putting their hands too deep into the corn tub."

He spoke of the over-feeding of stock in a sensible manner, and gave some good and wholesome advice. In conclusion, he toasted—

"The ladies of Ohio, of the States at large, and Canada."

The President here stated that he had just received a request from Kentucky, that the next Exhibition of the Society should be held in that State. It would be referred to the Board, and favorably considered.

8th Toast—"The State of New York, the Empire State of the national brotherhood. The entrenched ground for the protection of American Agriculture."

Col. Allen, of Buffalo, responded in an appropriate and happy speech. He spoke pointedly upon the importation of stock, and seemed to entertain that the United States was capable of rear-

ing equal, if not better stock, without importing. He thought but very little was gained in the new introductions. The relative position of New York with stock-raising regions of the west, was handled well by the Col. He admitted the advantages possessed by the West over the Empire State in soil and local position, but the immense resources of the former built up the internal improvements of the farmer, for without New York improvements, western products would find no easy access to the Atlantic seaboard.

9th Toast—The State of Delaware. Although one of the smallest States in the Union, she sends us one of her sons, who is not only able to speak for himself, but also for his State and his country.

Response by Mr. Holcomb, of Delaware, one of the Vice-Presidents of the Society, who spoke of the excellence of the State 'Farmers' College, of Delaware, where a thorough collegiate education was taught, in connection with scientific agriculture. Mr. Holcomb made a very good speech, but it was slightly abstruse.

Mr. Brown, editor of the Ohio Farmer, then offered the following:

MASSACHUSETTS.—Famous in history as the battle-ground of Freedom; famous at present as the abode of taste and refinement, and equally famous for the energy, intelligence, and enterprise of her sons.

This called out Col. Wilder, who said he had no speech to make. Massachusetts was noted as a State of granite and ice, but she raised men. She needs no one to speak for her; she speaks for herself. There are her institutions.

Col. James, of Urbana, O., was next called for, and made some few remarks, in which he differed somewhat from several other speakers, relative to the aid and assistance of the general government in agricultural matters.

Col. Sanders, of Ky., on being called for, spoke in high terms of the exhibition; said he could not talk, but all his views upon agriculture had been published. He had imported and raised cattle; reared race horses, cultivated; had lived seventy-four years, but had not learned to make a speech.

The President then read the following resolution, which was unanimously adopted:

Resolved, That the thanks of this assembly be rendered to the Local Board of Managers, to the Marshals and other officers, to the Editors and Reporters of the Press, and to the citizens of Springfield for the worthy part which they have respectively taken in this magnificent exhibition, and in the excellent accommodations for those who have attended it.

After which Hail Columbia was performed by the band, and the assemblage separated.

There appeared to be but one expression of feeling among the great crowd assembled together from different points, and that was of pleasure. All seemed satisfied and pleased at the banquet, and the most cordial sociability and feeling prevailed.

At night, a number of speeches were made in the street fronting the Anthony House, in Springfield, by Gov. Wright, of Ind., Geo. Waring, the celebrated agricultural lecturer, of New York, and

others; a large number of persons were in attendance, and the speakers were listened to with a lively interest.

THIRD AND LAST DAY.

COMPLETE LIST OF THE PREMIUMS AWARDED.

SPRINGFIELD, Oct. 27.

The attendance to-day on the ground was not very large, and was composed principally of the Stock owners and their numerous friends, anxious to learn the result of the labors of the awarding committee.

The ring was opened by the sweep stake entries for the best bulls and fine cows or heifers, of one year and upwards, from any one herd—premium \$500.

Five entries were made as follows:—Brutus J. Clay, of Bourbon county, Kentucky; Col. S. Meredith, of Wayne county, Indiana; W. O. Pierce, of South Charleston, Ohio; Jacob Pierce, of South Charleston, Ohio; Dr. A. Watts, of Chillicothe, Ohio.

Eight judges were appointed, no two from the same State. They were four or five hours engaged in examining the respective merits of the animals, and finally, as your reporter understands, agreed to disagree, they being equally divided upon the Kentucky and Indiana stock.

PREMIUMS,

AWARDED AT THE NATIONAL CATTLE SHOW AT SPRINGFIELD, OHIO.

The labors of the committees, particularly those upon "Short Horns," were extremely arduous, and continued, with little interruption, during Wednesday and Thursday. On Friday, about 12 o'clock M., the reports of all, except the committee on sweep-stakes, were received by the Secretary and read from the stand, as follows:

DURHAM BULLS.

3 years old and upward.

1st premium, \$300, to Perfection; bred by Jeremiah Duncan, owned by Edwin G. Bedford, both of Paris, Ky.

2d prem., \$200, to Sheffield, owned by J. W. Robinson, of Madison county, Ohio.

3d prem., \$100, to Belmont, owned by Caldwell & Co., Fayette county, Ia.

2 years old.

1st prem., \$200, to Locomotive, owned by Brutus J. Clay, Paris, Ky.

2d prem., \$150, to Colonel, owned by R. G. Dun & Co., Madison county, Ohio.

3d prem., \$75, to Lafayette, owned by J. M. Sherwood, Auburn, N. Y.

Yearlings.

1st prem., \$150, New Year's Day, owned by Chas. M. Clarke & Co., Springfield, Ohio.

2d prem., \$100, King Cyrus, George M. Bedford, Paris, Ky.

DURHAM COWS AND HEIFERS.

3 years old and upward.

1st prem., \$200, to Lady Stanhope, owned by Brutus J. Clay, Paris, Ky.

2d prem., \$150, Duchess, William Palmer, Fayette county, Ohio.

3d prem., \$100, Clara Fisher, S. Meredith, Cambridge, Ia.

2 years old.

1st prem., \$150, Fashion, J. Steadon, Warren county, Ohio.

2d prem., \$100, Laura, Brutus J. Clay, Paris, Ky.

3d prem., Mary Clay, \$50, S. Meredith, Cambridge, Ia.

Yearlings.

1st prem., \$100, Louan, Jeremiah Duncan, Paris, Ky.

2d prem., \$75, Easter Day, Charles M. Clarke & Co., Springfield, Ohio.

DEVON BULLS.

3 years old.

1st prem., \$100, Know Nothing, N. W. Smith, Warren county, Ohio.

2d prem., \$75, Herod, L. G. Collins, Montgomery county, Ia.

2 years old.

1st prem., \$80, Moulton, L. F. Allen, Buffalo, N. Y.
2d prem., \$60, Jake, E. Merritt, Clark county, Ohio.

Yearlings.

1st prem., \$50, Priam, L. G. Collins, Ia.

DEVON COWS.**3 years old.**

1st prem., \$100, Sappho, L. F. Allen, Buffalo, N. Y.
2d prem., \$75, Frances, L. G. Collins, Montgomery county, Ia.

2 years old.

1st prem., \$75, Dolly, E. M. Merriweather, Todd county, Ky.
2d prem., \$50, Devon, N. W. Smith, Warren county, Ohio.
A yearling heifer of L. G. Collins was commended.

HEREFORD BULLS.**3 years old.**

1st prem., \$100, Curly, Thos. Aston, Elyria, Ohio.

2 years old.

1st prem., \$80, Mystery, W. H. Sotham, Tioga county, N. Y.

1 year old.

1st prem., \$75, Defiance, Thos. Aston, Elyria, Ohio.

HEREFORD COWS.**3 years old.**

1st prem., \$100, Bombazine, W. H. Sotham, Tioga county, N. Y.
2d prem., \$75, Duchess, Thos. Aston, Elyria, Ohio.

2 years old.

1st prem., \$75, W. H. Sotham.

AYRESHIRE BULLS.**3 years old.**

1st prem., \$100, Dandy, P. Melendy, Hamilton county, Ohio.

2 years old.

1st prem., \$80, Wallace, T. W. Barber, New Paris, Ohio.

1 year old.

1st prem., \$75, Ducaa, P. Melendy.

AYRESHIRE COWS.**3 years old.**

1st prem., \$100, Lassie, P. Melendy.

2 years old.

1st prem., \$75, Alice, P. Melendy.

JERSEY BULLS.**3 years old.**

1st prem., \$100, Pat 4th, B. L. Colt, Patterson, N. J.

JERSEY COWS.**3 years old.**

1st prem., \$100, Dun, B. L. Colt.

2 years old.

1st prem., \$75, Jersey, owned by same.

1 year old.

1st prem., \$60, Patty, same.

MISCELLANEOUS.

1st prem., work oxen, \$50, C. Fullington, Union county, Ohio.
2d prem., fat ox, \$50, B. Stedman, Cleveland, Ohio; weight 2,500 pounds.

3d prem., fat cow, \$50, J. W. Ware, Fayette county, Ky.; weight 2,240 pounds.

4th prem., milk cow, \$50, J. W. Brock, N. Petersburg, Ohio.

5th prem., \$50, steer, J. W. Ware, Fayette county, Ky.

6th prem., \$50, bull calf, W. D. Peirce, Clark county, Ohio.

7th prem., \$50, heifer calf, W. W. Trasher, Fayette county, Ky.

The committee on sweepstakes, being a premium of \$500 for the best herd of a bull and five cows or heifers of any breed, were unable to agree, after a thorough examination and full deliberation. The entries were five in number, all of them superior herds. When they reported their disagreement, the hour was late and the sales of stock had commenced; it was found impossible to call a new committee, and the first one refused to have any additions made to their number. Mr. Wilder and the other officers did every thing that could be honorably done, to lead to an award of the sweepstakes, but without effect. It was an important feature of the great show, and of the utmost importance to those who presented

their fine herds for competition; it is, therefore, to be regretted that a different result was not arrived at.

GRASS LAND—GRASS SEED.

It has frequently been remarked by practical men, that, in laying down lands to grass, the bestowment of a few extra pounds of seed, is not to be considered by any means as a useless expenditure of capital, but the reverse. Farmers often subject themselves to serious inconvenience and loss, by being too parsimonious in this particular; they proceed upon the erroneous principle that all the seed sown will germinate, and that all that germinates will produce plants; whereas the truth of the case is, that under ordinary circumstances, a considerable portion of the seed never vegetates, or if it vegetates, does not obtain root, or produce plants. When allowance is made for loss, and for defect in seed, when there are any indications that it is of a bad quality, we shall hear less complaint that "grass seed has not taken well." On light soils, which are deficient in retentive power, and where the requisite degree of compressibility is not easily attained, nothing is more certain than that a considerable portion of the seed committed to it—unless in a peculiarly modified season—will fail to sprout. The rapid descent of such soils, and their extreme permeability to atmospheric influences, cause them to become speedily *dry*—a condition in which no seed can be made to develop healthily, or if it should, to produce a vigorous plant. The application of an extra allowance of seed, followed by the roller for the purpose of consolidating the surface, is indispensable to success in stocking lands of this description.

For the New England Farmer.

SOWING SEEDS FOR FOREST TREES.

MESSEURS. EDITORS:—It is gratifying to see inquiries how worn fields can best be replenished with forest trees. There are many such fields in New England, and the earlier they are converted into forests, the better will the public interest be promoted. No knowledge that has been acquired by experience should be withheld from inquirers. "C. W." is informed that it is best, if there is much sward on his land, to plow and sow rye and pine seed at the same time. It is now too late in the season to gather the seed of white pine, but the seed of yellow pine may be gathered till winter. Probably white pine seed may be obtained at the stores. If the planter chooses to have order in his forest as in the orchard, he will be inclined to plant but one kind of trees; but when we sow broad-cast, it is well to mix different kinds of seed. "C. W.," I think, may do wisely to wait till another year, plow his land in summer and gather his own seed, which I suppose should be done in the State of Vermont the last of August, or the very first of September; a very little frost causes the seed of white pine to fall out.

M. A.

Pembroke, Oct. 24th, 1854.

WHAT BOSTON HAS DONE FOR AGRICULTURE.

AGRICULTURAL STORES OF BOSTON.

Hiram Blackmer, 34 N. Market; Joseph Breck & Son, 51 & 52 N. Market; M. & F. Barr, 23 Broad, corner Central; Hovey & Co., 7 Merchant's Row; Parker, White & Gannett, 59 & 63 Blackstone; David Prouty & Co., 19 N. Market; Ruggles, Nourse, Mason & Co., Quincy Hall, S. Market; Nourse & Co., Commercial, near Quincy Market.

HORTICULTURAL AND SEED STORES.

Azell Bowditch, 54 School; Curtis & Lincoln, Washington, corner Hayward Place.

AGRICULTURAL AND HORTICULTURAL SOCIETIES.

Mass. Society for Promotion of Agriculture.—John C. Gray, President. Abbott Lawrence, Vice President. Benjamin Guild, Recording Secretary. Josiah Quincy, Jr., Corresponding Secretary. Thomas Motley, Jr., Treasurer.

Mass. Board of Agriculture.—His Excellency, Emory Washburn, His Honor, Wm. C. Plunkett, Ephraim M. Wright, Secretary of State, ex-officers. Marshall P. Wilder, Nathaniel Wood, Edward Hitchcock, Robert C. Winthrop, and others, Members of the Board. Charles L. Flint, Secretary. Rooms at the State House.

Mass. Agricultural Society.—J. S. Cabot, President. B. V. French, Cheever Newhall, E. M. Richards, Josiah Stickney, Vice Presidents. Ebenezer Wright, Corresponding Secretary. W. C. Strong, Recording Secretary. Samuel R. Austin, Treasurer. Rooms, Horticultural Hall, School Street.

Boston Agricultural Papers.—Boston Cultivator, Otis Brewer, 22 N. Market, weekly; American Veterinary Journal, George H. Dadd, 1 Haymarket Square, monthly; Fruits of America, O. M. Hovey, 7 Merchants' building, monthly; Gardner's Magazine, W. S. King & Co., 54 School, monthly; Horticulturist, J. Breck & Son, 51 N. Market, monthly; Journal of Agriculture, W. S. King & Co., 54 School, monthly, Magazine of Horticulture, C. M. Hovey, Editor, 7 Merchant's Row, monthly; Massachusetts Ploughman, W. & W. J. Buckminster, 51 N. Market; N. E. Farmer, Reynolds & Nourse, Quincy Hall, weekly; Practical Farmer, William S. King & Co., 54 School, weekly.

It is now the harvest season with the two millions and a half of farmers of this agricultural nation. So great is the interest in the cultivation of the soil, that more than half the States of this Union hold State Fairs this autumn, of from two days to six, and the agricultural exhibitions of towns and counties may be reckoned by hundreds.

At first thought, we may ask, what Boston has to do with agriculture? It is a commercial, and not an agricultural town. This is true, but without agriculture commerce cannot flourish, and some of the best friends and patrons of agriculture have been men who were connected only with its merchandise.

But Boston has a nearer connection with agriculture. This whole peninsula was nothing once but the farm of Rev. William Blackstone, who owned its then 700 acres, and cultivated such a portion of them as he was able. He was

here several years before John Winthrop and his party, and some writers go so far as to say that, solitary and alone he cultivated his garden and orchard in the spring, where he lived in the vicinity of the Lowell Railroad station. It is certain that he was here, and that he invited Winthrop to his peninsula farm. We soon find that the new comers by right, or by might, were so well pleased with Shawmut, with its "sweet and pleasant springs," that they confined Blackstone to 50 acres of his original peninsula, and, at length, reduced him to six acres, by a formal purchase. These acres were around his humble house, and were cultivated by this first farmer of Boston.

But Blackstone, who seems to have been an eccentric character, preferring solitude to society, remained only some ten years in Boston, after which he removed to Rhode Island, where he divided his time between books and agricultural pursuits, until he died in 1675. His farm has now the name of the Whipple farm, and is situated in the town of Cumberland.

There are other early claims of Shawmut in connection with agriculture; for here, it is supposed, the Indians enjoyed a favorite home, and raised the corn that bears their name. The clearings on this peninsula, when Winthrop arrived, indicated very clearly that it was the farm of the Indian before it was that of Blackstone.

As early as 1634, we find that the lands of the vicinity of Boston were divided among the principle inhabitants by a court which was convened at Boston; from 200 to 1000 acres being granted to each. Among these grants, we notice that 200 acres was granted to Rev. John Wilson, pastor of the first church in Boston. This land was bounded on the north by Medford. There was a provision in these grants, that if the lands were not improved, nor built upon in three years, they should revert to the court. At this period, Muddy River (now Brookline) was a favorite farming region. Wood, in his New England Prospect, describes it as a place where "are good grounds, large timber, and store of marsh land and meadow." He continues, "in this place the inhabitants of Boston keep their swine and other cattle in the summer, whilst the corn is on the ground at Boston, and bring them to the town in the winter." At Muddy Brook was the farm of Rev. John Cotton, of Boston, who was a colleague of Mr. Wilson, and in honor of whom this town was named; since he was previously settled in Boston, England. This farm, in 1848, included the two estates owned by John Kenrick and Moses Andem, of Brookline.

As for Boston itself, at this early period, there was less opportunity for large farms. Even then, the wood was mainly procured from Noddle's Island, from Dorchester, and Muddy Brook. Wood says of it—"This place hath very good land, affording rich corn fields, and fruitful gardens, having likewise sweet and pleasant springs." At the same time he spoke of one of our islands, the Governor's, "where is planted an orchard and a vineyard." Mr. Wood speaks further of the Boston of 1633 as follows:—

"Boston is two miles north-east from Roxbury. Their greatest wants are wood and meadow ground, which were never in that place, being constrained to fetch their building timber and firewood from the islands in boats, and their hay in lighters. It

being a neck, and bare of wood, they are not troubled with three great annoyances, of wolves, rattlesnakes, and mosquitoes. These that live here upon the cattle, must be constrained to take farms in the country, or else they cannot subsist; the place being too small to contain many, and fitted for such as can trade into England for such commodities as the country wants; being the chief place for shipping and merchandise."

It is quite remarkable that this writer, even then, had a prospective view of the commercial importance of Boston. If the inhabitants of that period were not troubled with mosquitoes, it is more than we can say of the present season, though for rattlesnakes we must go as far as Milton, and for wolves without the State. Writers suppose that Mr. Wood was mistaken, when he asserts that Shawmut, or, as the English first termed it, Trimountain, had no wood, though there was less then in surrounding places.

What Mr. Wood says at that period of the neighborhood of Boston, indicated that it might be distinguished as it has been for its agriculture and horticulture, as Boston would be for its devotion to commerce. He says—"The inhabitants of Roxbury have fair houses, store of cattle, impaled corn fields, and fruitful gardens." Dorchester has "very good arable ground, and hay grounds, fair corn fields, and pleasant gardens, with kitchen gardens." Of Lynn he asserts, "there is more English tillage than in New England and Virginia besides: which proved, as well as could be expected, the corn being very good, especially the barley, rye and oats."

We cannot tarry to trace the progress of agricultural pursuits in Boston and vicinity down to the close of the last century. Suffice it to say, that even this city has never been without its small gardens, and orchards, which, however, have grown less and less, as the ever increasing wave of commerce has rushed upon them, and finally flowed over them, until no vestige was left of their former beauty. Even as late as the period of John Hancock, it is said that "his lands were originally of orchards and gardens."

The formation of the Massachusetts Society for the Promotion of Agriculture, in 1792, is due to the influence of Boston and vicinity. Here its periodical, the *Repository and Journal*, was published and here was the centre of operations. Hon. Thomas Russell was its first President, and among its officers and members we find such men of Boston as Christopher Gore, James Bowdoin, Theodore Lyman, Robert T. Paine, and Josiah Quincy. And then the neighborhood gave the society John Adams, Fisher Ames, Martin Brimmer, Elbridge Gerry, and others. These were among the early members of the society.

A particular object of this society was to bring to the attention of our farmers the agricultural improvements of Europe, and to import from thence the finest kinds of stock. This last work has been continued to this day, and we owe it much to this society, and, perhaps, we may say, mainly, that we may see in Massachusetts fields and barns the finest specimens of the Durham, Devon, Ayrshire, Alderney and Jersey stock.

In connection with this society, there were annual exhibitions, or cattle shows at Brighton, for many years. The society offered premiums as high as \$100 each for the best articles in various

departments, or for some important agricultural discovery. These shows were annual schools for the people, and had a great influence in leading to other and similar shows in various parts of the State, and to the general improvement of agriculture. It was, no doubt, through the influence of this society, that the Middlesex Society of Husbandmen was formed in 1803, and the Berkshire Agricultural Society in 1811—which former claims to be the first county society in the State, and that county and town societies have been organized so extensively throughout the State.

But, perhaps, as useful a movement of this society as any was the publication of periodical under its auspices, which began in 1814, and was published on the first of January and July. The work was exclusively devoted to agriculture, and the papers were among the most able, thorough and practical that we have ever seen on the subject of agriculture. This publication was termed the *Massachusetts Repository and Journal*.

After this, and, probably, stimulated by the example of the first agricultural journal in Massachusetts, arose the *New England Farmer*, in this city, in 1822, under the auspices of Thomas Green Fessenden—a journal that exerted so wide and beneficial an influence. Since that period, the work has gone on until we have no less than four weekly, one bi-monthly, and five monthly periodicals in this city, and devoted to agriculture in its various branches. These journals, especially those published weekly, circulate very widely, some of them issuing as many as 20,000 or more each week. Such an influence is constantly going forth from Boston to promote good tillage; and hence large and valuable crops. And it is generally agreed that the improvement of agriculture in New England and in the country, and the wonderful improvement of the last twenty years, is more to be attributed to agricultural publications than to any other influence—and some would say to all other.

There is another influence which Boston has exerted upon the agriculture of the country and the world; and that is, through agricultural stores. The oldest agricultural store established in this city is that of Joseph Breck & Son, which was opened in 1828. One store after another has been established since, until there are now ten agricultural and horticultural stores, that are supposed, with the agricultural papers, to employ capital to the amount of \$1,000,000, and to do an annual business of \$2,000,000. Indeed Boston is the head-quarters of this business, having larger and more important stores than any to be found in this country. And it is asserted with great confidence that the agricultural stores of Ruggles, Nourse, Mason & Co. is the largest in the world. Foreigners say as much, and the Yankee who travels up and down the store over the Quincy Market, will be pretty sure to guess that it is the biggest in all creation.

This firm is engaged in the manufacture, as well as in the sale of every article that the farmer and gardener uses. In Worcester, where their principal manufactory is, more than 200 men are employed, and more than thirty are connected with their sales-room in this city. In this business they use from six to seven tons of iron daily. Their plows, cultivators, mowing machines, clover, grass, garden and field seeds, etc., find their

way to South America, the Canadas, the British Provinces, to Australia, Africa, and even to Austria. If Austria sends for our plows, who knows but she will ask for republicanism next? The progress of this house is quite wonderful, when it is considered that it began business in Worcester in 1833 with only three hands, and has only been established in Boston since 1840.

The other houses mentioned at the head of this article, do quite as heavy business in this department. And to show the progress of the business, it may be mentioned that the large store of Nourse & Co. is but just opened, and that the beautiful fruit and floral store of Curtis & Lincoln has very lately been thrown open. Let any one travel through these stores, let him behold the fruits and flowers, the seeds destined for mother earth, of every size and description; the plows, large and small, for hill side and for plain, for light and for heavy soils; let him survey the beautiful forks and cultivators, the churns, that will almost make butter alone; the mowing and reaping machines, and even hay-makers, and he will be amazed at the perfection of the tools that are put into the hands of our farmers, and at the multitudes of labor-saving machines that have been invented—now that labor is so dear and scarce.

Mowing machines were only introduced into New England, to any extent, the past season. They have been used by western farmers for some six years. By the experiments made in New England, though not in all respects satisfactory (for the farmers must learn how to use them, and the machines may need some slight improvement,) it has been ascertained that a farmer may gather his hay crop for one-half of the ordinary expense, and some would say one-third. Even during the first season, of the introduction of these machines into New England, 300 of them have been sold by a single house; and it is supposed that the same hands may sell 1200 the coming season.

The rise of the Massachusetts Horticultural Society in this city, in 1829, was an omen of much good in the department to which it has been devoted. Its annual exhibitions, as fine as any in the world; the frequent addresses delivered before it; its weekly display of fruits and flowers; and the indefatigable efforts of its members, have made the gardens and orchards in this vicinity famous over the country and the world. In the late exhibition of this society, Col. M. P. Wilder displayed 273 varieties of pears. This fact is mentioned, as an illustration of the efforts that are put forth in a single department of fruit growing.

A member of this society commenced, in this city, the publication of the Magazine of Horticulture in 1853. It is the oldest publication of the kind in this country, and its present editor, who has edited it from the beginning, C. M. Hovey, Esq., is the oldest horticultural editor in America. The late lamented Downing was, when a youth, a contributor to this magazine, during the first year of its publication. We can hardly estimate the amount of good an original publication of this kind has done in a period of twenty years. Under the impetus given by the horticultural paper and societies, nurseries of trees have sprung up in all this region, where trees are sent to California, and the uttermost parts of the

earth. Under the same influence, landscape gardening has been taught scientifically, and has thus been practised, so that the whole vicinity of Boston is one extensive and elegant garden—causing the visitor, from whatever part of the world, to exclaim, “beautiful, beautiful!”

Most of the agricultural implements sold in Boston are manufactured in various parts of New England. Worcester sends forth plows, cultivators, mowing machines, by the thousands and millions. The same city, in connection with Millbury, manufactures many hard-ware articles, used by the husbandman. Easton gives us Ames' unequalled shovels. Vermont sends forth countless forks. West Fitchburg, New London, N. H., and other towns in Rhode Island, manufacture any quantities of scythes. Ox yokes and bows are made in vast numbers in various places in New England.

It would be interesting to dwell upon the wonderful improvements in the manufacture of these various implements. Within the recollection of men in middle life, cast iron plows were unknown, and when they were first introduced, the farmers were actually afraid they would break in turning over their first furrow. The plows of the olden times, and times not very old, were of wood, with comparatively little iron of any kind about them. There is a plow now under exhibition in the New York Crystal Palace, that was owned and used by Roger Sherman, of Connecticut. This plow is of wood, with a wrought iron share, and is quite a curiosity, particularly as compared with the splendid plows of the present day.

It is now generally acknowledged that our agricultural implements are superior to any manufactured in any other portion of the world. And we all remember how astonished John Bull was at the display of Jonathan in this department, in the London exhibition. And, as nature has given America the best soil under the sun—that great requisite to good farming—we see not why this nation is not to be the best farming nation in the world, and that at no distant day.

We come to the conclusion, then, that Boston though only the metropolis of sterile New England, has been the fountain head of American agriculture. Boston was, itself, once only a large farm. Its gardens were famous for two hundred years, and have hardly disappeared. In Boston was organized the first State agricultural society of this country, which had accomplished considerable before the now great agricultural State of Ohio was organized as a State in 1802, and while much of New York was a howling wilderness. Here, too, was established the first American horticultural journal, and here is the greatest agricultural ware-house in the world. And who have done more for American agriculture than the men of Boston and vicinity; than such men as Lowell, Webster, Coleman, Fessenden, Manning, and Downer among the dead; and Wilder, Cabot, Hovey, Buckminster, Gray, Quincy, Motley, Allen, and others among the living? And at no other time in our history has there been such an interest in this subject in Boston, and in the commonwealth, as at the present moment. Our merchants and mechanics are generally looking forward to the day when they shall have their little or large farms well tilled. Indeed, one is now esteemed hardly a man, unless he has his

country-seat, and can talk about his herds and his flocks. All this is well. Agriculture is a grand subject to be interested in. Its practice has a fine influence upon the mind, and, rightly pursued, a purifying influence upon the heart. It was the first pursuit of man, and it shall be the last; and without it all other interests must perish from the earth.—*Boston Post*.

For the New England Farmer.

FALL PLOWING.

MR. EDITOR:—It is an old adage that any fool can make money, but it requires a wise man to keep it, and the same is true relative to manure. I am led to this reflection by seeing my neighbor farmers all about me plowing their corn, potatoes and other lands, which were highly manured last spring, thereby exposing the unexhausted manure (which laid securely buried,) to all the ensuing fall, winter, and spring rains, by which means one-fifth of all the manure applied is lost. If any one disbelieves the assertion, let them try the experiment and they will be satisfied of its truth; it will cost them nothing to try. Now if every farmer wastes one-fifth of his manure, what is his loss? I will estimate it at from five to thirty-five dollars, according to his circumstances—enough to pay all his taxes; in the aggregate for the State of New Hampshire, making a large sum, which had much better be saved than lost. The theory that we cannot plow our land too much is correct, if plowed at a proper season; but to plow our manured lands in the fall, because our teams are then strong, &c., is a very bad practice.

I believe that every one that you may induce to suspend plowing in the fall, as above, if but one acre, can well afford to subscribe for your paper two years.

Yours with respect, H. S. PERRIN.
Orfordville, N. H., 1854.

REMARKS.—We thank our correspondent for the expression of his opinion about *autumn plowing*, although our own experience has led us to very different conclusions. We are earnest advocates of this practice, believing that teams are in better condition to plow in the autumn,—that the farm work is generally less pressing,—that manure well mingled with the soil in the spring, becomes so much decomposed and incorporated with the surrounding particles, as not to lose its valuable properties by exposure,—that there is not sufficient heat to evolve its ammonia, and that the soil, by being light and porous, receives from the atmosphere and snows valuable additions throughout the winter. The opinions below are expressed by "S. B. F.," in the *Rural New-Yorker*.

Fall plowing I think an important item in farm operations, for past experience has taught me that better crops of barley and oats may be secured, *on any of our lands*, by plowing in the fall, and we can invariably get them in better condition. I consider it indispensable, however, that no surface water be allowed to remain long, and neglect in this respect I believe to be the

cause of so many failures in the experiment. Some say, "plow dry lands, but you must not plow those which are wet;" but with all deference to the opinions of such, I (from past experience) advise to the contrary.

If I have a rather wet clayey lot, which is intended for spring crops, I by all means plow in the fall; not, however, in an indifferent manner, as is the practice of some, but with great care, putting it in narrow beds and cutting cross furrows or ditches, in order that all the surface water may quickly run off and not lay upon the land to harden it. In this condition the legitimate effect of the frost is to pulverize the soil, and when spring comes, once harrowing, and then going over it with the wheel cultivator, will put it in as good condition for sowing as it possibly can be.

For the New England Farmer.

NOVEMBER MONTHLY FARMER.

Considerable space in this number is occupied by accounts of various Cattle Shows in New England, by the valuable report of the proceedings and discussions of the American Pomological Society at its meeting in Boston, and by several articles on Fruit, such as Mr. Hovey's description of the Concord Grape, "A New Apple," "Sweet Apples," "Fine Pears," "Fig Trees," "Cranberries on Upland," "Tolman's Sweeting," "Apple Tree Borer," &c., and yet there is room for more articles beside these than I can profitably notice. I begin with—

"Some Wants wanted by Farmers."—A pretty good article on a capital subject. Want of means, want of knowledge, want of interest or love of business discussed. To raise the "means" a mortgage is suggested. Mortgages! I have learned by experience to shudder at the mention of that word. How they sweep the board to pay the "interest, annually," and still hang over the old homestead, generation after generation—a smothering night-mare on enterprise, ambition, hope! Mr. French said, in an article published some months since, that New England farmers were more extravagant in buildings, furniture, dress, carriages, &c. for show, than any other people in the world. Retrench, here; keep a bare parlor, wear cheap clothes, ride in the old wagon, endure a "lean kitchen," sell a few acres,—anything, *before* a mortgage on the farm. Yet the lack of means is undoubtedly the want of New England farmers. Mr. J. J. Thomas, of New York, in an essay published some ten years ago, enumerates the items of stock, tools, labor, seeds, and the feed of animals, &c., (beside the support of the owner's family) required for the first year's satisfactory management of a hundred-acre farm, which foot up at \$1,832 00. Besides paying for the farm, then, according to Mr. Thomas' estimate, almost two thousand dollars will be required the first year to enable the farmer to perform the different operations of his business in the best possible manner and at the best time. He also says, that in England a man who merely rents a farm there must have as large a capital as the man who buys and pays for a farm of equal size in the best parts of western New York, and that the great mistake of American farmers is in expending all their means for land, and thus have

nothing to begin the great work of farming with.

"*Hog-killing in Cincinnati.*"—A striking instance of the effect of capital and skill. In my neighborhood mechanics and small farmers pay the butcher one dollar for dressing a hog; in the Cincinnati establishment forty hogs are dressed a day to each man employed.

Questions by the Secretary of the Board of Agriculture.—Answers to these questions will enable the Secretary to make a valuable report, and those who want capital subjects to write upon will find in these questions appropriate texts for articles for the *Farmer*.

"*Gardens that never Fail.*" from drought, in Ohio, are those that are plowed or spaded deeply; so argue the Ohioans, this year.

"*Breaking Colts.*" is generally a troublesome and dangerous business. If the plan recommended here works well, those who have colts to manage will be likely to preserve the November *Farmer*, if all the other numbers are thrown away.

"*Maturing Plants.*"—A practical criticism on certain scientific theories, lately advanced in the *Farmer*.

"*Improving the Soil by Shade.*"—On this theory cellar bottoms ought to become rich, and apple tree roots in grass land ought to grow all the better for enjoying a shaded soil. Land covered for four years with brush two feet deep, especially such as would decay in half that time, or even land on which flax is spread merely to rot, might be improved thereby from the deposit of vegetable matter, and the disengagement of gases, consequent upon even partial decomposition, without giving any credit at all to "Shade." Though I have little faith that shade will ever be bagged up and sold at "fifty dollars a ton," as a fertilizer, yet I like to read what sensible men have to say on this, or any other "new theory,"—for it shows that they are *thinking*.

"*Another Specimen of Farming.*"—"Vermont-er" here gives so attractive a picture of his farm and neighborhood, of his success and independence, that many readers of the *Farmer* will hope to hear from him again, and be informed more definitely of the location of his portion of Vermont. A detailed statement of his management, crops, sales, &c., will be interesting, partly from the fact that small farmers, being unwilling to contrast their humble doings with those "big stories" that abound in agricultural papers, very seldom furnish accounts of their operations for publication. Beside the \$1500 purchase money, what amount of capital was required the first year to pay for your stock, implements, seeds, labor, keeping of animals, &c. Give us the items, will you?

"*Importation of Guano.*"—A memorial to Congress, for its influence to reduce the price of Guano.

"*The Curculio.*"—Experiments with lime, whale-oil soap, and a brood of chickens, to save plums from the curculio. I tried the chicken prescription, this year, with no success.

"*Remarks about raising Hops.*"—An article "true to its name."

"*Lightning Rods not Humbugs.*"—So argues Mr. Quimby, an old rod-builder.

"*State Almshouse.*"—Proves a bone of contention." Fair play is a jewel; but is it quite fair for one writer to represent another as saying, "an ample supply [of water] is expected from the wells that are to be dug—not from those they already have,"—when his words were, "they had a good supply of water at present, but were improving the wells, to have it more plentiful and of better quality?"

"*Hawaiian Agriculture.*"—An account of the progress of wheat-raising on these islands, which I notice for the purpose of quoting the remark of the writer, who has tried both climates, that the sons of New England "may well be thankful that they were born and cradled among her hills, instead of first breathing the balmy air of a southern climate."

"*How to save Top Onions.*"—By one who has "raised them over twenty years, and never failed." When so many people find it almost impossible to raise a few common onions in their old gardens, why are not the top onions more generally cultivated?

"*Domestic Guano.*"—If ten millions of dollars are paid out of the United States annually for imported guano, is it not time for farmers to commence the manufacture of domestic guano, if, as this article says, every family of four persons may make a ton, by saving what is now thrown away?

"*Buckwheat.*"—The increased cultivation of this grain recommended, because improved mills for grinding and hulling it have been introduced.

"*The Drought.*"—Among the many accounts of the past dry summer, I notice one in which the writer says,—"The moral of the dry spell is, to plow deep and cultivate moist land." I believe so, too; and cannot help inquiring what bearing this experience has upon the book-farming theory of "thorough draining," so often urged upon the farmers of this country? A READER.

Winchester, Nov., 1854.

For the New England Farmer.

PATENT CIDER MILLS.

MR. EDITOR:—Some short time since, thinking that the farming community might be benefited by a few words of caution before purchasing a cider-mill, called, I think, "Hickok's Patent," I addressed a few lines to the *Ploughman*, stating my objections, but which the Editor did not think proper to put into his paper. I cannot see what objection there could have been to what I wrote, unless the interest of the *Ploughman* is on the side of the "mills," and those farmers who would otherwise have purchased might have delayed doing so from what was said in regard to them. The substance of what I wrote was this:—That the mill was very far from being what it should be as yet;—that as the mill now is, it was nearly impossible to make it work with the ordinary cider apples as they are brought to be made up. I had no doubt but what two men might possibly make two barrels of cider in a day, provided the apples were all perfectly sound and free from rot; but it is well known that this is far from being the case as the apples are brought to the mills to be ground. I do not hesitate to say, from what I have seen in regard to the operations of two of

the mills in this town, that two men cannot possibly make three barrels of cider a day with the mill with the ordinary apples that cider is generally made from. Where they are unusually rotten the mill will not work at all, and by dint of great patience in clearing the grinding part I do not deny but what some little progress may be made.

He who doubts this has only to give the machine a fair trial to be satisfied of the truth of what I say. In my article to the *Ploughman*, I suggested that the inventor should contrive a way to have the grinding knives operate perpendicularly, instead of as at present, to obviate this objection—and also to have the press tub a little larger, which could not add very much if anything to its present expense.

At the present time it is very far from what is generally wanted by the farmers who have over five barrels of cider to make. And a very little alteration in its grinding gear is all that is wanted to make it perfect. KING OAK HILL, M. D.

Nov. 7, 1854.

For the New England Farmer.

PERFECT MANURES.

BY DOCT. JOSEPH REYNOLDS.

What constitutes a perfect manure? Manures differ in their composition. One kind is valuable for its humus-forming properties; another for the properties that contribute mainly to the growth of stalks, leaves and flowers; another for those elements that are essential to the formation of seeds, grains, &c. It is often said of certain kinds of manure, that they do not hold out through the season. The plant will start well and grow for a time, but does not mature much grain or fruit. It is said the manure is used up, or it has not strength enough to carry the plant through. It may be true, sometimes, that a manure putrifies so rapidly, that its nutritive elements are all given off before the plant has gone through its several stages of growth. But I suppose the above complaint is made of manure when it is deficient in those elements which the plant requires in its seed-forming stage. It has not in it a sufficient supply of those elements that mainly contribute to the construction of the grain and fruit. What, then, is a perfect manure? That which the plant requires during every period of its growth and maturity. The liquid excrement of animals yields a large proportion of nitrogen, potash and soda. These elements contribute especially to the growth of leaves and stalks. The solid excrement is rich in seed-forming elements, as phosphoric acid, lime and magnesia, and these elements are developed more slowly than those in the liquid excrement.

Now it will be readily perceived that neither of these is, by itself, a perfect manure. If you use the liquid alone, you will say that it does not hold out through the season; although it may give you a large growth of stalk and leaf, it will not give a full growth of grain and seeds. If you use the solid alone, you will complain that your plants grow slowly and are small, even though what grain they do yield may be of good quality. The most perfect manure is that which results from the combination of these two excrements in the most intimate manner possible.

Other substances may be added to this compound, for the purpose of absorbing the one, or of more readily pulverizing the other; or substances may be added which are supposed to be wanting in the soil to which it is proposed to apply the mixture, as sand and plaster when it is to be applied to a peaty soil, or mud when it is to be applied to a sandy soil.

When these materials are placed in a mass and kept moist, a process soon commences called putrefactive fermentation. By this process, several chemical results are brought about. The first is the evolution of several elementary substances, and the second their combination into new compounds, of a highly important character. By the putrefactive process, carbon, nitrogen, hydrogen and oxygen, are set at liberty from the compounds in which they previously existed. The oxygen and carbon, having a strong affinity for each other, combine and form carbonic acid. The nitrogen and hydrogen form ammonia, and this, when formed, combines with carbonic acid, forming carbonate of ammonia. Where the air is freely admitted, a large portion of these elementary gases pass off as they are evolved, without forming the unions above indicated, and are thus lost. When the putrifying mass becomes saturated by the compound gases above mentioned—carbonic acid and ammonia—these also pass off into the air and are lost. As these are of immense value to vegetation, they should be retained if possible. The most effectual mode of retaining them is to sprinkle the compost heap, when it begins to throw off a strong odor, with sulphuric acid and water, three or four pounds to a barrel of water. This should be repeated as often as necessary. A solution of sulphate of iron, or common copperas, is the next best means. If the manure is to be applied to trees, it is probably better than the uncombined acid. Sulphate of lime, or plaster, is useful for the same end. I do not think plaster as useful as some have represented it in this respect. It consists of an acid combined with an alkali, for which it has a strong affinity. If you would divorce this acid from the base, to which it is already married, in order that it may form a new union, you must present a base for which it has a stronger attraction. Potash and soda will attract the various acids from lime, but ammonia will not do this, except under peculiar circumstances. I suppose plaster acts mostly by absorbing the fluids, and thereby stopping the putrefactive process for a time, rather than by giving up its acid to be combined with ammonia.

When a solution of sulphuric acid, or of sulphate of iron is sprinkled upon the compost heap, a sulphate of ammonia is formed, which is but slightly volatile. The sulphate of ammonia thus retained in the mass, is taken up by the rootlets of plants, and carried into the sap vessels, where it is decomposed, and furnishes to their formative organs sulphur, oxygen, nitrogen and hydrogen, which are the ultimate elements of which this salt is composed. But these elements are not all which vegetables require. They require carbon, which, in the form of carbonic acid, abounds in manure—iron, manganese, potash, soda, lime, and silex. As a general rule, potash, soda and lime, should not be mixed with the compost heap, but should be applied to the soil sep-

arately, either in solution or in powder. If applied to the compost heap, they rapidly decompose the compounds of ammonia, and permit it to escape. These alkalis should never be mixed with guano, for the same reason. Plaster is less objectionable for the reason given above, viz. that it is not readily decomposed by ammonia.

Concord, 1854.

J. R.

REMARKS.—This report was made to the Concord Farmers' Club, last winter, and belongs to the transactions of that time. It was mislaid by us and forgotten.

GYPSUM.

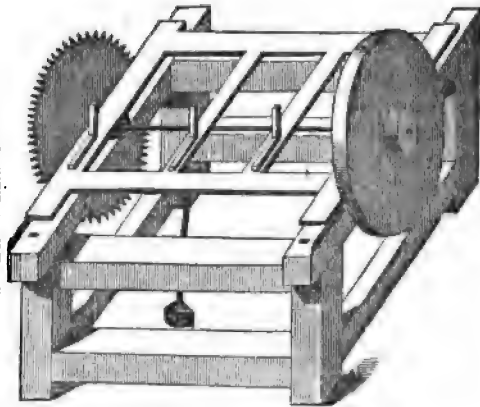
Many theories have been started by speculative philosophers to account for the stimulant effects of gypsum upon the vegetable system. Formerly, the opinion was almost universal that it operated only as a stimulant—exciting the parts, and inducing a more rapid and copious appropriation of the various elementary matters taken up in a state of solution from the soil. Professor LIEBIG, however, in one of his recent works, has presented a beautiful solution of its action on soils. The carbonate of ammonia, which is known to be extant in rain water, and a most salutary and energetic agent in effecting the development of vegetables, is, according to his theory, attracted and decomposed by gypsum, and soluble sulphate of ammonia and carbonate of lime formed. As this salt of ammonia possesses no volubility, it is, of necessity, retained in the soil, and economized for the use and increment of plants. Both the above named salts, however, operate advantageously upon the original humus of the soil, and by a specific action, tend to advance its preparation as a food for plants.

We have often spoke of this subject before, but introduce it again to the notice of the reader, believing that everything which is known in relation to the action of this useful mineral, when applied as a manurial agent, will ultimately tend to the advancement and prosperity of the farming art. That gypsum is capable, under certain circumstances, of producing very marked results, is what no candid observer will deny. On clayey loams, as a top-dressing for grass-land, it is highly esteemed, and is probably an efficient and economical manure.

QUINCES.—This fruit is scarce and dear in this city. The best sell for \$6 a hundred. For a bushel of very ordinary quality we paid \$2.50. Now can any one tell us why such prices should prevail? If not, we will. It is because the farmers of the whole region around New York are the most perverse, obstinate followers in the footsteps of their illustrious predecessors, who never thought of the necessity or advantage of planting more than three quince bushes, which stood, yes, stand still, and have stood for half a century,

producing just fruit enough to serve the wants of the family "to flavor the apple sauce." They have never thought of such a thing as planting a quince orchard, of the best variety of fruit that can be obtained, and cultivating it with care as a crop for profit. We have heard of but one man who pursued this course, and we are told that he received last year fourteen hundred dollars for the produce of, we think, three acres, which was more than he received for the saleable produce of all the rest of the farm.—*N. Y. Tribune.*

REMARKS.—In Boston, quinces are neither scarce nor high in price, nor have they been for several years. They are selling now, Oct. 27, at \$1.50 per bushel. We think there are about as many grown now as there is a market for, at a fair profit. They can only be used as a preserve, and in quite limited quantities, to flavor other fruits.



EMERY'S SAW MILL.

A few weeks since we gave an engraving and description of Hickok's Cider Mill. To examine one of them for ten minutes satisfies any one of their great value over the old mills. A person who purchased one, informs us that he took it into his orchard, and made ten barrels of cider with it, alone, the first day he used it! It is only necessary that many machines should be known to ensure their being used.

This week we give another mill, and for a very different purpose. It is a saw mill. It is made strong, with joint bolts, patent metallic boxes, large and long shaft and heavy fly-wheel, and may be used with the Single or Double Horse Power. For Single Power, a 22 inch saw is used; for a Double Power, a 54 inch saw; and with the One Horse Power and two men, from 10 to 15 cords of hard wood may be cut twice in two per day, or as much soft wood as they can handle.

The same mill, by changing saws, can be used for slitting boards and plank for fencing, &c.

APPLES.—The crop of apples in New England this year, as it has been every even year since the

Baldwin came into general cultivation, is too large for the demand, and the price has been drooping, until they are now dull in Boston at \$1.25 a \$1.50 per barrel, and may be had delivered at the railroad depots, 30 or 40 miles from Boston, at 35 to 40 cents a bushel, or \$1 without the barrel, the cost of the barrel and of transportation bringing them to about \$1.25 to \$1.50 on the railroad.

REMARKS.—We copy the above from the *Boston Daily Mail*. Good Baldwin apples are selling in Quincy market, to-day, Nov. 10, for \$1.50 to 2.00 a barrel, and the demand is equal to the supply. The sale is quick for good, well selected apples. We hope our friends will not find discouragement in this report. They can raise apples at a profit at \$1.00, barrel not included; and when they are lower than this, they can feed them to cattle and swine with as much profit as can be found in any other crop.

For the New England Farmer.

BEST METHOD OF GETTING CORN AND HAY.

MR. EDITOR:—Feeling deeply interested in the improvement of agriculture, I esteem it a privilege, as well as a duty, to make known what I think to be an improvement, that others who are situated on like soils may profit by my experience. Corn and hay are the two most reliable crops in this region; and how to obtain the most of them with the least expense, is what we ought to study. A part of my land is too wet for common cultivation but good for hay. I find it most profitable to turn it up once in four or five years. I have tried plowing in September and seeding down, and have succeeded well. For a number of years past I have practiced taking off one crop of corn, and then seeding down to grass, which I think is much more profitable. My method has been to turn up the land in the fall, laying it off in beds about two rods wide, and put the manure in compact heaps near enough to transport it by hand. So that I need no team but a horse to go upon it in the spring; by this means I can plant about as early as common land. As soon as the corn is hard enough to ripen on the stalk, I cut it up, carry it off and stock it and sow the land with grass seed immediately, always spreading on a small coat of compost manure. By this method I have never failed of getting a good crop of corn, and can get the land smooth and suitable for good mowing with little labor. By this management I think I can obtain as much corn from my low land as from my high, and keep it in good order for hay.

THOMAS HASKELL.

Gloucester, October 31, 1854.

REMARKS.—We are glad to find the mode of husbandry detailed above gaining new advocates. Corn, hay and fruits are our staple crops, and how to secure the most of each permanently, at the least cost, is a question worthy of thought, and experiment. There is no doubt in our mind, that much of our mowing lands remain too long in grass. The objection urged, that it costs too much

to break them up, is not a valid one, because, if often plowed, one pair of oxen would perform the labor and there would be little more expense than in plowing an acre of stubble land. There would be an extra cost of grass seed, but the increased crop, we think, would be more than sufficient to offset the unusual expense.

DEEP PLOWING AND PLASTERING.—The *Michigan Farmer* gives the following experiment of Mr. Millsbaugh, of Van Buren, in that State, as "a fair dollar and cent operation." With a heavy team, he plowed a twelve-acre lot twelve inches deep—sowed to oats, and seeded at the same time with three and a half bushels of clover seed. Soon after he sowed sixty pounds per acre of plaster. The crop of oats was good. He cut, the next year, two tons of clover per acre, and in the fall gathered clover seed worth one hundred and sixty-four dollars. That is

24 tons of hay, at \$8-per ton,.....	\$144.00
Clover seed,.....	164.00
Total,.....	308.00

From this the labor is to be deducted, which is not given, but which would doubtless leave a "fair" profit as one year's proceeds of 12 acres, for which deep plowing, liberal seeding and plaster, are to have the chief credit.—*Country Gentleman*.

WHAT BOSTON HAS DONE FOR AGRICULTURE.—The attention of the reader is called to a capital article with the above title, in another column, which we take from the *Boston Post*.

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